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ABSTRACT

This handbook is designed to serve as a tool to assist school and agency staff in implementing the Career Information System (CIS), a model interagency consortium designed to provide means of direct access to current career and labor market information, based in Oregon. The first section of the handbook discusses what is known about CIS and successful strategies in various educational and agency settings. Included in this section are the following: Background of CIS, overview of the system, system components (QUEST, Occupational Descriptions (DESC), Bibliography of Occupational Books, VISIT, CLUBS, Preparation, Programs of Educational Training, Schools, and Statistical Package), staff development, and career centers at the secondary school and college levels. The second section consists of "recipes" from users for implementing the system in counseling centers and classrooms. A master index is provided that breaks individual recipes into appropriate subject groupings. The 61 recipes appear in order after each subject heading. Guidance, Language Arts, and Social Studies are the three major groups of recipes collected into learning packages. These materials are followed by shorter subject matter groupings: Science, mathematics, physical education, art, personal finance, and career clusters. Located in the career clusters section are recipes pertaining to business, industrial arts, health, child care, and food services. Appendixes contain blank recipe sheets, a user agreement form, standards for use of CIS, localized information about Oregon CISs, and a numerical list of CIS occupations. (TA)

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KEEPING IT GOING

Handbook for Implementing the Career Information System

September, 1976

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ACKNOWLEDGEMENTS

This year's handbook for implementing the Career Information System, Keeping It Going, has resulted from the combined efforts of CIS staff members and users. The first part of the handbook is designed to give an overview of the System and some hints for implementation. The last section of the handbook, the collection of implementation "recipes" that begins on page 48 results from the work of a group of educators in several areas in the state who use CIS in creative ways in classroom and counseling situations.

For this year, the recipes have been revised and regrouped. The "Interdisciplinary" section has been eliminated, and three "Learning Packages" have been compiled: Guidance, Language Arts and Social Studies. We would like to take this opportunity to thank Marilyn Olson, Lane IED, and Tim Drilling, CIS, Eugene, Oregon, for their work on these Learning Packages.

Thanks also goes to Marilyn Olson from the Lane IED, Maggie Burton and Tim Drilling from the CIS staff who provided editorial assistance during the summer to prepare the recipes for printing. To many of you who have made suggestions throughout the year, we appreciate it!

John S. Clyde
Director of User Services

I

INTRODUCTION

NEED FOR HANDBOOK

New programs don't implement themselves: they need explanation; they require physical facilities; they involve orientation and training of staff; they rely on feedback from the field; and they need management and evaluation. A comprehensive career information system is a new idea in most schools and agencies; consequently, a management, in-service training, and feedback system is needed. This handbook serves as a tool to assist school and agency staff in implementing CIS. The first section of the handbook attempts to reflect what is known about the System and what has "worked" in various educational and agency settings. The second section consists of "recipes" from users for implementing the System in counseling centers and classrooms. We encourage you to send your ideas for similar instructional materials to CIS (Office of the Director, 247 Hendricks Hall, U of O, Eugene 97403) so they can be included.

BACKGROUND OF CIS

Although the concept of an information system that could effectively serve students and clients in a variety of Oregon settings was held by several educational and agency personnel prior to 1969, it was not until that time that representatives from the Oregon Employment Division, the State Department of Education, Oregon State University, the University of Oregon, and the Lane Intermediate Education District took concrete steps to "get it together." They studied information systems developed in other parts of the

country. Their research and discussion led to a thorough review of system components and the feasibility of a career information system including such factors as information development, delivery devices, in-service training, location, staffing and resources for funding.

By the spring of 1970, the group was determined to establish a Career Information System for the state. They proposed that the Career Information System be a model inter-agency consortium which would provide practical means of direct access to current career and labor market information. The following goals were articulated:

Goals of CIS

1. Finance the formation of an inter-agency Career Information System for the collection, packaging, and dissemination of career information.

2. Develop information in an array of media and formats reflecting differing needs of individuals and resources of agencies.

3. Manage various information access systems.

4. Provide systems engineering services to schools and social agencies throughout the state. Such services would help individual schools and agencies select appropriate information and delivery components for a functioning system.

5. Provide consultant services to help individual schools and agency staff members integrate occupational information into ongoing instructional, planning and counseling functions.

6. Provide pre-service and in-service training opportunities for present and potential schools and agency staff.

7. Field test organizational and financial arrangements of the CIS program prior to exposure throughout the state.

8. Evaluate the efficiency of the CIS operations and the effectiveness of the disseminated information in improving student and client career decisions.

This group of representatives recognized that new and attractive delivery vehicles would be used, but that valid information content should be the real heart of the System, and effective implementation would be essential.

Board of Directors

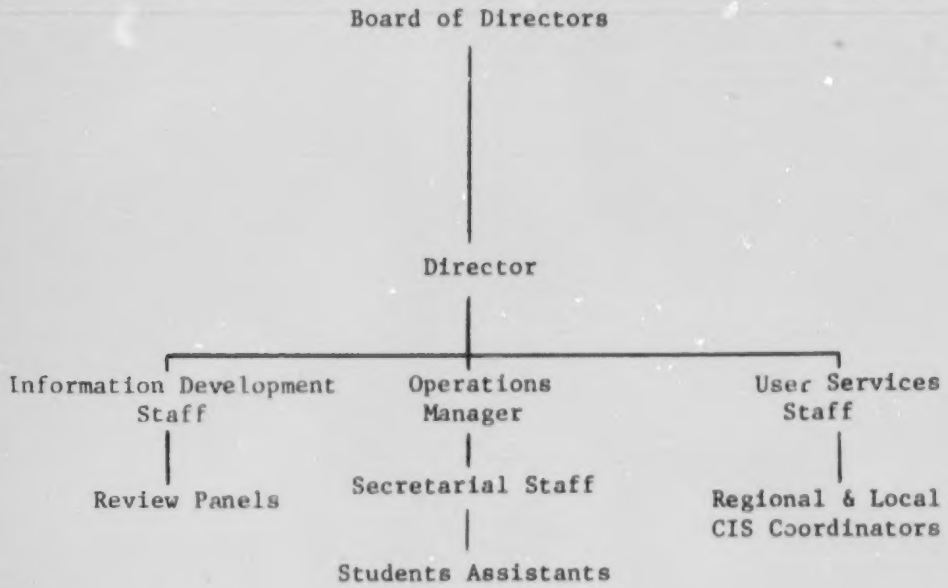
Initial funding for the Career Information System was provided in the fall of 1971 by the Manpower Administration of the U.S. Department of Labor. A Board of Directors was formed. Membership in this consortium is by formal invitation and is extended to representatives from secondary and higher educational institutions, social service agencies, CIS user agencies or other persons designated by the Board. Current CIS membership includes: community colleges, intermediate education districts, local school districts, Oregon Employment Division, Oregon State Department of Education, and the Oregon State System of Higher Education. This Board meets to establish CIS policy, represents member institutions, and fosters statewide cooperation and program development.

During the summer of 1973, CIS received an additional grant from the Fund for the Improvement of Post-secondary Education to expand its educational component to include current information about Oregon training programs, institutions and schools. These new information files became operational in January, 1975.

CIS Staff

The CIS maintains a core staff, housed at the University of Oregon, to maintain and foster use of the System. A staff of three to five researchers are continuously at work keeping the various labor market, education and training files current and accurate. They incorporate new data in the computer within a week of its becoming public. In addition, they systematically review all files at least annually. In addition, CIS employs two field representatives to work closely with school, college and agency staffs for the most effective implementation of the System. The

CIS Director and the Operations Manager provide management and backup support to the staff as well as handle Board communications. The staff organizational chart follows:



II

OVERVIEW OF THE SYSTEM

HOW THE SYSTEM WORKS

Mechanically, the CIS is an information system designed to rapidly and efficiently disseminate career information. CIS makes extensive use of computerized data that can be easily delivered on command from a teletypewriter terminal. At the present time, the System includes extensive labor market and occupational information about 231 carefully selected occupational fields defined to represent about 97 percent of Oregon's labor market. It also describes all post-secondary training programs in the state as well as extensive information on Oregon's two- and four-year colleges, technical/vocational, and proprietary schools.

In addition to the computer-based system, there is a needle-sort system utilizing a traditional card sorting process. Information files are supplied in book form as computer printouts, thus the Occupational Needle-Sort System closely duplicates the process and content of the computerized version.

A user, student or client, can begin at any point in the System. For example, he or she can first request a description of any occupation by typing DESC and the four-digit code number for the occupation. The description includes aptitudes and abilities needed, as well as the number of persons currently employed locally in the occupation, types of employers, employment prospects locally and nationally, and sources of training. Or, a user can access one of the other files containing current career information.

For specific operating instructions, lists of the various information files, and the QUEST questionnaire, see the CIS User's Handbook.

Many users new to the System begin use with the career exploratory questionnaire (QUEST) where they self-report their abilities, interests, and other preferences related to occupational requirements. The teletypewriter then prints out a list of the occupational titles that correspond to his/her particular preferences. The user has a number of important options when using the list. He or she can ask WHY NOT -- why a certain occupation isn't listed. The answer might be that the minimum wage that the user stated as a preference on QUEST is so high that the occupation in question is not a likely prospect for further exploration. If the user chooses, he or she can CHANGE answers and get new lists. Or the user can ask for the DESC (occupational description) of one or several of the occupations listed. Occupations and relevant training are linked in the PREP file; more specific information about programs of study and individual schools is found in the PROG and SCH files. Another option is to consult one of the reference books (e.g., Occupational Outlook Handbook) that accompany both the computerized and needle-sort systems. In some areas, the user can type in VISIT and the occupational number to get the name of a person in the local community who has volunteered to talk with users of CIS about a specific occupation from a first-hand point of view.

One of the most satisfactory features of the System is its non-coercive nature. The user provides the information on the sorts of jobs that he or she is interested in and the criteria important to him or her. The System merely uses those criteria in determining the jobs which might be most appropriate. Clearly, such a system does not replace the need for counseling and aptitude testing, but it does make available career information which can be extremely useful to individuals who are in the process of examining their occupational and educational opportunities. Moreover, it puts modern technology in the hands of students and clients, thus reducing some of the hesitance that some people feel about new technological systems.

SYSTEM COMPONENTS

Quest

The introductory statement of QUEST contains the instructions necessary for a person to complete the questionnaire, and enter his or her responses via the use of either a teletype terminal or a manually sorted deck of cards. The mechanics of QUEST are such that most students or clients can operate it without much outside instruction or assistance, freeing the counselor's time for interpretation and planning.

The QUEST List of occupational titles is the product of the individual user's configuration of responses to the 24 QUEST questions which include factors of physical limitations, regional location and city size preferences, amount of educational preparation attainable, working conditions, aptitudes, interests, and minimum acceptable salary. Questions pertaining to physical limitations, working conditions and aptitudes are based directly on the classification and relationships between worker trait factors and occupations contained in the Dictionary of Occupational Titles. The rationale of the interest questions is based on the relationships between data-people-things and specific occupations as expressed in the D.O.T. occupational classification system. Standard labor market data sources are used for the factors of regional location, city size, amount of education, and salary.

Processing logic retains all the occupations contained in the System except when a user's response is inconsistent with a critical factor to a particular occupation. If a person gives a consistent response, the occupation is retained. The user can respond to any question with "no preference" or "I don't know," thus effectively bypassing the question and eliminating no occupations. Occupations are eliminated from a user's list only when he has responded to a question with a definitely inconsistent response, and then only when that factor is critical to an occupation, as determined from the D.O.T. worker trait and data-people-things relationships and standard labor market sources.

Validity and Readability of QUEST. The validity of the questionnaire is a function of its readability and the ability of the user to self-report. QUEST is not a test, "but an instrument for recording information which is presumed to be known to the individual. Its validity, therefore, depends upon its readability, upon the user's ability and willingness to answer the questions, and upon the validity of the labor market and worker trait factors on which the individual questions are based."[1] The real criterion for evaluating QUEST is not whether it predicts or measures, but whether it identifies some new pertinent occupations.

Extensive field testing in schools and social agencies has established the readability of the questionnaire for both disadvantaged and non-disadvantaged clients. "Over 90% of the counselors and clients in various schools and agencies who tested the System rated it easy or very easy to use."[2] In a major test of OIAS in three state Employment Service offices in Portland involving 267 clients, 94% of the disadvantaged and 96% of the non-disadvantaged clients rated the questionnaire easy to read.[3]

In testing the ability and willingness of the user to self-report, there was 80% concurrence between the Employment Service client's responses and counselor or GATB assessment of him.[4]

From field tests, it is clear that QUEST does identify new, pertinent occupations. In the Churchill High School study, 70% of the students who used the System reported that the list of occupational titles gave them some new occupations that they would seriously consider for future

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[1]Bruce McKinlay, Validity and Readability of the Occupational Information "QUEST" Questionnaire, University of Oregon, Eugene, Oregon 1971, pp. 27-28.

[2]Validity and Readability, p. 1-2.

[3]Jerry Weick, Occupational Information for Employment Service Counseling: An Evaluation of Occupational Information Access System Pilot Use in Three Portland Employment Division Offices, University of Oregon, Eugene, Oregon, 1972, p. 16.

[4]Validity and Readability, p. 34.

work.[5] A study in one junior high school, where students in a vocational exploration class who used the System were compared to a matched group of students who received no vocational instruction, showed a statistically significant increase in the number of occupations students were able to list. Students in the class using the System were able to list 34 occupations, on the average, while students not in the class were able to list only 21.[6]

QUEST List. The relevance of the occupations on the QUEST List and the length of the lists has been evaluated specifically in tests in schools and social agencies. The number of occupations remaining on user's lists averages approximately 30. About two-thirds of user lists range between 5 and 40 occupations. Evaluation indicated that when a person's list was substantially shorter or longer, it often stimulated the user to re-evaluate his or her preferences reported on the questionnaire.

Two features of the System are definite aids in this process. The computer program encourages the user to ask WHY NOT for a given occupation which was not on the list. It also allows the user to CHANGE his or her responses to previous questions. The first results in listing the client's response which eliminates a specific occupation, and the second allows a changed response to a prior question.

This tendency of users to re-evaluate their preferences points to a very important conclusion of the Portland Study: namely, that "QUEST was creatively manipulated as a tool by the client rather than used in a rigidly mechanical fashion."[7] There was also evidence that clients generally understand QUEST in the content of the occupational decision-making process. "There was no evidence in the responses

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[5]Bruce McKinlay and Danial Adams, Evaluation of the Occupational Information Access System as Used at Churchill High School, Bureau of Governmental Research and Service, University of Oregon, Eugene, Oregon, 1971, p. 3.

[6]Leonard D. Adams and Lawrence K. Fowler, Vocational Counseling at the Junior High School Level, A Case Study at Shasta Junior High School, Eugene, University of Oregon, Eugene, Oregon, 1971, p. 3-6.

[7]Portland, p. 17.

of clients to indicate that the list was restrictive or taken too seriously."[8] Evaluation indicates that usage of the questionnaire and list have an educative function which increases user awareness of the occupational decision-making process, apart from the occupational information it provides. The user becomes aware of how his responses to questions affect the range of occupations appearing on his or her list for exploration and consideration.

Savings in counselor time are relatively small when QUEST use is completely monitored by a counselor. However, complete counselor monitoring is not required. Moreover, since it has been shown that System usage expands and enhances the occupational exploration and decision-making processes, there are quality increases as well as time savings. The Portland study indicates that counselors tend to take advantage of the increased information available through the System which they would otherwise have foregone or obtained only by spending more time in information collection than they usually spend.[9] In a study comparing the System and the conventional, verbal delivery of information in the Lane Community College Counseling Center, results indicated OIAS was at least as effective and definitely more efficient as an information delivery system. Additionally, the System was a much less expensive way to obtain and deliver occupational information.[10] "OIAS delivers occupational information of at least equal quality to the counseling center in approximately one-half the time per use, and at a cost of one-tenth or less of the counseling center."[11] Utilizing the System for information delivery provides a factual basis for personal decision-making and frees counselors to help that process.

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[8]Portland, p. 18.

[9]Portland, p. 6.

[10]Larry Lynn Ross, The Effectiveness of Two Systems for Delivering Occupational Information: A Comparative Analysis, Master's Thesis, University of Oregon, Eugene, Oregon, 1971, pp. 83-84.

[11]LCC, p. 80.

Range of Effectiveness. In the various tests of the System, QUEST and LIST have been used both independently and in conjunction with a counselor as part of the counseling process. It has been demonstrated to be effective under both conditions, and with widely varying types of clients--youth and adults, disadvantaged and non-disadvantaged, the unmotivated and the highly motivated, bright and articulate college students and slow high school students, as well as people with some idea of their goals and those with no idea what they want to do.[12] In the Portland test, counselors reported that it was not effective with severely disadvantaged clients with little or no reading skills and with clients who were not interested in making an occupational choice. It also appears that persons with very low abilities tend to become discouraged and probably need additional guidance to make a sound and satisfactory choice. These limitations help delineate the areas of this component's effectiveness and provide guidelines as to which clients should use the System.[13]

As a result of extensive field testing and evaluation, numerous modifications of the QUEST questionnaire have been made and the development of revised questions is underway. Because the System is new and dynamic, continued research and development is necessary even though implementation into schools and social agencies in the state is proceeding. Undoubtedly some of the possibilities for refinement lie in the development of additional selection criteria and operational formats. Alternatives to the data-people-things questions in the present questionnaire are being studied. Aptitude and physical demand factors may be expanded to include all those of the D.O.T. Lastly, certain items may be developed as strategy questions. Such questions could be designed to make explicit the high degree of choice on such factors as location, salary and amount of education a person is willing to obtain, since, in an actual job choice situation, most people are willing to make trade-offs between such factors.

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[12]Bruce McKinlay and Larry L. Ross, Evaluation of Occupational Information Access System Use in Six Pilot Agencies, University of Oregon, Eugene, Oregon, 1970, p. 4.

[13]Portland, p. 11.

Occupational Descriptions

Of the seven information components contained in the System, the OCCUPATIONAL DESCRIPTIONS have proved to be the most popular and valuable to most users. These concise, current 300-word descriptions are available for each of the occupations presently in the System. They describe the function of the occupation, related occupations, types of employing establishments, working conditions, hiring requirements, pay, and employment outlook.

The user determines the occupational title and its numerical code from his QUEST LIST or from the alphabetical listing of occupations contained in his user handbook. When using the teletype terminal, the user enters DESC followed by the occupational code number. The terminal responds by printing out the description.

Occupational Printouts. For the needle-sort system, the user locates the descriptions by their code numbers in a bound copy. Approximately every six or seven months these descriptions are "dumped" from a computer, reproduced, and bound in numerical order by occupational code number. Yearly subscriptions to the Occupational Printouts can be ordered from CIS for any area in the state where labor market research has been completed. (See Appendix D)

Attractiveness of Descriptions. The attractiveness of these descriptions to students is borne out by the Churchill High School study. "Virtually all users said the descriptions were fun to use, easy to understand, accurate and up-to-date. Substantial majorities also said they related jobs to their personal interests, values, and abilities, and were complete."[14] The great attractiveness of the System "seems to be a reflection of the computer terminal's attractiveness as an information display device that presents only the information requested and provides a copy for the user to take with him. The amount of time required for a description to print out (about three minutes) has been criticized by some computer personnel and vocational educators as boring. Students do not widely agree."[15] Both

[14] Churchill, p. 13.

[15] Churchill, p. 13.

high school students and a range of agency clients are widely satisfied with the content and format of the occupational descriptions.

231 Occupations Presently Included. Generally, CIS has attempted to provide occupational information at a level of detail that is useful from a counseling standpoint as well as feasible from the standpoint of data collection. The Dictionary of Occupational Titles lists over 20,000 entries, but a broader grouping is more useful for occupational exploration and more consistent with the CIS's present research capability. Therefore, as a result of grouping, a much smaller number of occupational titles, 231 presently, can reasonably account for nearly all employment in Oregon. References to specialties for each occupation are listed, along with their D.O.T. numbers, in the occupational descriptions. New occupations are added to the CIS description files periodically as the staff becomes aware of the special needs of users and fluctuations in the Oregon labor market. (See Appendix E for a numerical list of occupations.)

Information Development. Accuracy of information is hard to measure; however, the CIS information development staff makes every attempt to reflect quality. In most instances, and especially when information is highly variable and difficult to validate, more than one source is used to develop the information. Sources include standard publications from the Oregon Employment Division and national manpower data producing agencies, unprocessed data from a variety of state and national organizations and from knowledgeable persons. This latter source includes review panels composed of five to seven persons for the examination and validation of each occupational description.

The information is continuously updated as new data become available. The result is that each occupation is examined systematically at least once each year.

Localized Information. Localization of information is accomplished through separation of the information items into two groups: information that varies among geographic areas of the state (area specific information) and that which doesn't (common information). Currently, localized information is available for the two largest labor markets in Oregon, the Portland and Eugene metropolitan areas, Coos/Curry counties on the southwest coast, Jackson, Josephine & Douglas counties in Southern Oregon, the Eastern part of the state, the Mid-Willamette Valley, and statewide information. Statewide information will be used provisionally in areas new to CIS until localized information can be developed. The cost of developing localized information

prohibits CIS from building such a file until financial support develops in that local area. Generally, this means a minimum 4,000 to 5,000 persons using the System in an area before the information is localized. (See Appendix D)

Bibliography of Occupational Books

Users are referred to selected occupational books which have additional information concerning particular occupations when they enter BIB and the occupational code number. The Dictionary of Occupational Titles and the Occupational Outlook Handbook should be kept near the computer terminal or needle-sort deck for user reference. Other material referred to in particular BIB files include information needed for ordering. Interested users may wish to order selected publications for their own use.

Seventeen percent of the clients using the Bibliography of Occupational Books rated it the most helpful part of the System in the Portland test.[16] In the test at Churchill High School, 6 percent of System users rated it as the most valuable information component.[17] Although only a small proportion of clients used this information component, client rating and counselor comments indicate that it is a worthwhile component, and should remain available to that select portion of clients who find it helpful and are able to use it.[18]

VISIT

The primary function of the VISIT component is to provide personal contact between the System user and a person who is working in a particular occupation; thus giving the user the opportunity for personal discussion with someone in the occupation and for observation of his or her work site. There often is more than one name per occupation, giving the user some variety of location, firm and occupational specialty.

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[16] Portland, p. 31.

[17] Churchill, p. 18.

[18] Portland, p. 31.

By entering VISIT and the occupational code number, the user can get the name and pertinent information of the person to visit. Users working with the occupational needle-sort system may find the name and pertinent information of persons to visit on the card referring to the particular occupation. In Portland, visits can be arranged by the schools work-experience coordinator using the resources of IPAR. CIS will assist other areas in the state with the development of VISIT files and is presently doing so in the Southern Coast and Mid-Willamette Valley areas.

Only 12 percent of the users in the Churchill evaluation made use of the VISIT component. However, one third of the students who used the VISIT file rated it the most valuable information component.[19] Terminal records and observations indicate that users access this information far more often than they actually make a visit. It may take counselor or teacher encouragement to motivate students and clients to utilize this resource.

At the time of writing, a VISIT file is available only in the Lane County area. Such information must be localized. The Eugene, Springfield and Florence Rotary Clubs, with the help of the Lane Intermediate Education District, undertook as a project to expand and maintain names for users to visit in the area. The Lane VISIT file currently contains names of about 275 individuals representing over 150 of the 231 occupations in the System. This same method could be easily duplicated in almost any part of the state.

CLUBS

The CLUBS component provides CIS users with information on how to contact Explorer posts and Junior Achievement clubs in the various areas of the state. Both programs give young men and women an extended opportunity to learn about specific jobs from people in an occupational field.

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[19]Churchill, p. 18.

By entering CLUBS and a CIS occupational code, the user can learn specific contact information related to the occupation. The file includes the club's sponsor, address, the name and telephone number of a contact, and a brief description of the club's activities.

Preparation (PREP)

This information file attempts to describe how people prepare for each occupation in the System. Although for some occupations fairly specific types of certificates or degrees are required, for many preparation is quite flexible. When applicable to a specific occupation, the preparation statement may include necessary skills to be developed, licensing requirements, education and/or experience requirements, and tips for employability. In addition, the PREP file contains recommendations for junior and senior high students about what high school subjects relate to their occupational interests. In time, this PREP file may become one of the most valuable files to those using the System.

To access preparatory information from the computer, the user need only type in PREP and the four digit occupational code number. To access high school subjects, type PREP and only the first two digits of the occupational number. With the needle-sort, preparatory statements are included following each of the occupational descriptions in the printouts titled Occupational Information. The high school subjects are found at the beginning of each occupational area in this same book of descriptions.

Programs of Education and Training (PROG)

The CIS educational research staff has identified 126 kinds of education and training programs in our state and a few outside Oregon. Each program file has a rather complete statement about its length, skills necessary to be successful in the program, coursework to be completed, and training programs that are closely related. In some instances, tips relating to admissibility to a specific school's program and special costs also are listed.

The program file also gives the student or client a complete list of the schools, their locations and program title at each school. As a part of the Occupational Needle-Sort System, this program information comes in book form entitled Programs of Study and Training and accompanies the cards and other books. With the computerized version, the user enters PROG and the three digit code number for the program information needed. At the end of the program statement, the computer asks the user if a complete list of schools is wanted. The user then has several options as to how much information he or she desires.

Schools (SCH). Once the user has determined to ask for information about a particular college or training institution, he or she can immediately access information on any post-secondary institution in the state. The CIS staff has developed current school information for a variety of topics (e.g., enrollment, costs, financial aid procedures, admission requirements, student enrollment, programs of study, etc.).

School information accompanies the needle-sort in the form of two volumes, one listing information on two- and four-year colleges, and the other for business and other technical/vocational schools in the state.

With the computerized version, the user types in SCH and the appropriate five digit number of the school or schools (option of three schools at one time). The computer then asks what the user wants to know about the schools; the user replies with the numbers corresponding to the various topics he or she desires information about. An attractive feature of the computer's delivery of this information is the immediate comparison of up to three schools at one time on as many as 64 information topics.

Statistical Package (STATPG)

The computerized version offers a management report that automatically keeps a record of system usage without monitoring people. Simply by typing in GET-*STATPG (Return Key) instead of usual GET-*CIS (Return Key) step as you log-on, the teletype terminal will respond with a record of use (e.g., what components are being used, the most accessed occupations, frequency of QUEST responses, what schools are being accessed, etc.) of the system for a particular school or agency setting. This management record may serve as excellent data for a number of functions: (1) System evaluation; (2) curriculum revision; (3) ordering guidance materials; (4) establishing system usage; etc.

III

STAFF DEVELOPMENT

LOCAL, REGIONAL AND STATEWIDE COORDINATION

Integral to the activation of any program or system is the selection of key people to handle the necessary coordination tasks. Starting either CIS's computerized version or the Occupational Needle-Sort System requires coordination by someone in a school or agency whose interest and training complements career guidance. Most often, this person is one of the school's or agency's counseling staff who has been assigned responsibilities in career planning.

Role of the Local Coordinator

Although the degree of responsibility may vary with the following local coordinator's activities, each is important to the System's proper start and to its successful continuation. The role of the local CIS coordinator should include the following:

1. Develop a thorough familiarity of the System's (computer and/or needle-sort version) components;

2. Acquire an understanding of how these components work together as a system and how they can be used in various combinations for many purposes (see Standards For Use, Appendix C).

3. Develop a plan whereby the System can be made available most effectively to serve the guidance needs of all students or clients for whom it is intended;

4. Acquire an understanding of the System's Standards For Use;

5. Become familiar with the System's materials (i.e., user handbooks, occupational and education printouts, etc.) and how to obtain adequate supplies;

6. Develop the capacity and set aside the time to provide both technical and professional assistance to staff and students on System use;

7. Schedule and lead orientation for staff and students;

8. Communicate with CIS staff on problems encountered in the use of the System and suggest improvements;

9. Assist with the necessary budgetary and invoicing procedures to financially support CIS.

Cadre Training

Oregon schools using CIS need trained, geographically accessible people who will:

1. Inform area educators and the public about CIS.

2. Assist CIS staff with in-service training.

3. Assist CIS staff with the distribution of materials.

4. Coordinate yearly cooperative budgetary matters for CIS implementation.

5. Assist CIS staff with implementation, trouble-shooting, evaluation, and follow-up in schools.

6. Give feedback to CIS staff about system improvements.

To address these functions, a cadre of 40 regional support personnel, including the 16 Oregon Regional Career Education Coordinators, will be selected during the summer of 1976 and trained during the fall. Criteria for selection include maximum accessibility without travel and substitute staffing restrictions, ability to conduct in-service training, and experience with CIS.

WAYS TO INTRODUCE CIS

The key to implementing the Career Information System effectively is a well organized staff development program. As a building coordinator you must be the CIS salesperson and delivery person with the staff. To do so with the limited amount of time you have is understandably difficult and therefore it is recommended that you recruit the assistance of two or three key staff members and an administrator to plan and implement as a committee a staff development program.

Institutional staffs are not always waiting for labor market information with "open arms." However, the current emphasis on career education, the career oriented workshops that are involving classroom teachers and the increased career awareness of the public are all factors that are changing these attitudes. Interestingly, the concept and the delivery devices of CIS have served to motivate staffs to get involved with current labor market information and relate this information to their daily activities. The educational information is of considerable interest too.

Staff Meetings

It should not be overlooked that the guidance function is generally the responsibility of the entire staff, not just the counselors or some other designated group. For this reason, ways need to be sought to expose the entire staff to the computer or the needle-sort shortly after it is put in operation. A most obvious and quite practical process is to demonstrate the System at a staff meeting or during part of a regularly scheduled meeting. CIS personnel have helped to conduct a number of these meetings and recommend the following guidelines:

1. The length of the presentation should be short, probably not more than 30 or 40 minutes.

2. Each staff member should be given a CIS User's Handbook and asked to respond to the twenty-four QUEST questions and to identify three occupations in which they have interest. The staff may also be asked to circle the educational programs and/or schools in the handbook that they want information about. The User's Handbooks should be collected and taken to the terminal and "BATCH"* processed for each staff member. Aides can assist you in this "batching" process.

   Once the computer printout for each staff member is completed, check his/her list of occupations. If the list does not include the occupations they identified as having interest to them, ask the computer "Why Not." Also access occupations, educational programs, or school topics the staff member has circled. If time does not permit, you may want to xerox samples from each information file to give them an idea of what kind of information is available in the System.

3. After each staff person's printout is completed, return it personally and explain the process. Many alternatives are available in returning the information to staff members (e.g., individually, small groups, by department, etc.). The critical factor is to go over thoroughly the QUEST process and the types of information included in the System and to encourage staff to integrate its use into instruction. This is also an excellent time to introduce CIS "Recipes," describing how they can use the System in their instructional area (see page 49).

   Staff should be apprised of the location of the System and procedures for its use. While "batching" the QUEST is not the perfect way to introduce staff to CIS , it will at least give them an early introduction. Your ultimate goal, however, should be to have each person use the System personally during the course of the year.

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*BATCH processing is a quick way to type a user's QUEST answers into the computer. The process is initiated by typing in "BATCH QUEST." Student use of "batching" is generally not authorized since it removes the student from the interaction of the process.

With the needle-sort version, ask each staff member to fill out QUEST in their User's Handbook. Then select one of the staff, possibly the administrator in charge, and proceed to take him or her through each question in front of the staff. Make comments about the function of the System and introduce the staff to the occupational and educational information.

Following is a sample agenda for introducing CIS to staff in an in-service meeting:

SAMPLE AGENDA

A. Introduction of coordinator with remarks of administrative commitment	ADMINISTRATOR
B. Introduction of CIS and brief explanation of broad objectives	CIS COORDINATOR
C. Complete QUEST by staff with the computerized version or by asking the administrator to work through the questionnaire in front of staff with the needle-sort version.	CIS COORDINATOR
Total Time:	30 - 40 minutes

Visits

Another process to reach the staff, particularly a large one, is for the System coordinator to visit each department. He or she is not only able to make the presentation more informal but to respond to particular instructional or functional features of the System as it applies to that department. To illustrate, if you are talking with a group of math teachers about the System, mention the logic in the QUEST process as well as how occupations are dropped out by the amount of arithmetic ability self-assessed by the users. CIS "Recipes" related to math subject matter could be introduced and distributed at the same time.

Each Staff Member Should Use the System.

Memorandums to staffs telling them about the System have been used too. However, it is the actual use of the System by staff members that should be the goal of orientation. Nothing can replace a "hands-on" experience.

WHAT THE GUIDANCE STAFF SHOULD KNOW

"Standards For Use (see Appendix C, page 4)," adopted by the CIS Board states: "In-service training of staff is a prerequisite to the use of the System. Effective use of the System requires an understanding of: System components, sources and use of information, mechanics of System use, and discussion of System applications within the particular setting. Staff who will use or be responsible for the use of the System in individual schools and agency offices must attend a training program which has been approved by CIS."

The following topics should be adequately discussed by CIS staff at all pre-service meetings with the guidance staff of all schools and agencies new to the System.

Why a System?

There are many weak points in the delivery of occupational and educational information to individuals planning their careers but perhaps the most severe weakness is the almost total lack of efficient, functional, attractive systems by which unsophisticated users can access comprehensible information in forms, places, and times that are appropriate for them. It is an often neglected fact that information is of no effect unless it reaches decision makers, yet individuals have had limited options for obtaining occupational and educational information. They can try to see a counselor, if they are fortunate enough to have such services available; they can write to a professional or trade association for promotional literature; they can try to choose a current and factual source from an ill-stocked library; or they can forget the whole information gathering exercise as more trouble than it is worth and simply "ask around." The latter option may in fact be the rational choice; in any case, it is the predominant pattern, as many studies testify. In attempting to

systematize the delivery of information, CIS has given explicit attention to both the information itself and the vehicles by which it is delivered. The necessary features of an information delivery system for career planning are:

1. Make information easily accessible to persons of varying ability and experience.

2. Provide a means for integrating occupational and educational information with clients' interests, values, and aptitudes.

3. Display and/or deliver information in an attractive manner.

4. Provide accurate and current information, including a capacity for updating.

5. Supply local as well as national data.

6. Provide information concerning a wide variety of occupational groups.

7. Include such specific information as:

   a. job duties
   b. work environment
   c. hiring and training requirements
   d. terms of employment
   e. hours
   f. current labor market condition
   g. long range outlook
   h. education programs
   i. school and college environments

8. Function efficiently.

System Components

Chapter II, Overview of the System, provides an adequate description of the components and brings out some of the substantive research findings about each. Reference to this chapter should be used extensively in conducting pre-service training of school and agency guidance staffs.

The fifth section of this handbook that focuses on learning activities based on CIS may also be utilized as an informational resource for pre-service training (see page 49).

Location of System

The placement of the computer terminal or the Occupational Needle Sort System has proven to be one of the important factors affecting System use. Although the most appropriate location of the System must be determined by the school's or agency's staff, the following considerations should prove helpful:

1. Students and clients should have easy access to the terminal or needle-sort. The most successfully used systems have been out where students can watch others accessing them, hear the noise from the computer terminals, and generally observe that the experience is both enjoyable and informative.

2. The location should be convenient for assistance from the staff. A user may need some assistance to get started using the System and when he/she is finished. Several schools have trained students as aides to assist users, thus freeing staff for counseling and other professional activities (see page 40).

3. Computer terminals are often used to access other computer programs besides the computerized version. Some schools utilize one terminal for math problem solving, simulation games, students' scheduling, as well as for the CIS computerized version. Consequently, the terminal's location may require a joint decision by several departments for its best utilization.

4. Several schools have allowed students to take the Occupational Needle-Sort System home overnight, thus providing an opportunity for the entire family to engage in career exploration. This requires a "check-out" procedure.but has proven well worth the effort involved. Under the needle-sort rental agreement, CIS will replace materials that are lost.

Standards For Use

Any system has strengths and weaknesses, ways it can be effectively used and ways it can be abused. The CIS Board of

Directors has established Standards For Use (see Appendix C) outlining the best uses of the computerized and the Occupational Needle-Sort System. This set of "Standards" is intended to help user schools and agencies understand the System and to plan uses of the System that will complement other guidance and institutional activities.

Service Agreements

A set of "Standards" accompanies each written agreement (see Appendix B) that is established between the user institution or agency and the CIS. This written agreement clarifies both the responsibilities of the CIS and those incurred by the user institution. Agreements are re-established each year and have served to increase the staff's understanding of financial commitment, in-service training dates, and evaluation methods. It is recommended that the school's or agency's staff who are directly working with the System be familiar with both the "Standards" and the agreement.

User's Handbook

In the use of both the Occupational Needle-Sort and computerized system, the User's Handbook serves as the most available and reliable technical resource. The handbook contains the QUEST questionnaire, a complete list of the occupations, programs of training, and schools found in the System, and all necessary instructions for use of the System.

The needle-sort handbook outlines on the top of page 9 what the System's user must do in working his or her way through the needle-sort process. Students generally acquire the necessary skills needed to sort the cards very quickly. In group settings, two or three students can work with the needle-sort at one time. The person who has answered the questionnaire may be inserting the needle through the appropriate holes while another is picking up discarded occupations, studying them, and putting them back into the card box. CIS has found that persons often talk about the questions, call one another's attention to the discarded occupations and discuss the process. This interaction among the users working with the needle-sort appears to provide a good learning environment. After the person has selected several occupations which interest him or her, the occupational cards direct them to read the appropriate occupational and educational

descriptions. Many schools have added to the cards names of resource speakers, leaders of explorer posts and other occupational exploration resources available in their local area.

The handbook used with the computer provides more technical detail on the use of the computer. Students and clients are given detailed instructions on page 24 on how to use the computer terminal. Experience has shown that most students are perfectly capable of following these computer terminal "log on" methods correctly and quickly. After they are into the System, the computer is programmed to give the necessary instructions for use. The instructions on page 25 provide an additional listing of special messages or options open to the user. It is helpful if the user becomes familiar with these special messages in the handbook so that he/she can use them while on the terminal.

Responsibility of Counselors

The System delivers information; it does not counsel students and clients. It is not programmed to react to the user with a number of counselor-type responses simulating a counseling interview. Rather, it is programmed so the user can get occupational and educational information in the amounts he or she desires.

An important part of the counselors' responsibility is to help with the integration of the System. As an informational device, the System must become a part of the institution's planned program for assisting students and clients in their career decision-making. Guidance and counseling goals should be articulated by school and agency staff; the computerized and needle-sort systems are part of the activities that will be provided to accomplish these goals.

Counselors must provide initiative to bring a greater awareness of career opportunities into the classroom. Teachers generally need encouragement to think creatively about methods for career information in their subject matter. In more than one school, the System has been an important tool that "turns teachers on." (See page 49)

Help for the Guidance Process

There is evidence that the System:

1. Motivates students and clients to think about their own preferences and relate those preferences to the world of work;

2. Increases the user's knowledge of occupations and information about certain occupations;

3. Provides students with information that they want to keep for future reference;

4. Saves counselors time from researching the information themselves;

5. Increases the possibility of the counselor using more reliable occupational information in his or her counseling interview; and

6. Tends to introduce more order into the occupational decision-making and counseling process.

Publicity to Users

The best publicity device to promote the System is a conspicious location in the school or agency. Experience shows that spectators become users.

Many approaches have been tried in introducing the System. The school's newspaper or agency's house organ is often a key link to good communication to a wide variety of potential users. In agencies, demonstrations to groups of clients have provided motivation for individuals to use the System. Notices on bulletin boards and announcements over public address systems also have been effective.

In recent months, CIS has launched a substantial public relations program aimed toward making the general public in Oregon more aware of the service. Numerous newspapers and other media have carried articles or short news features about the System.

IV

CAREER CENTERS

SECONDARY SCHOOL CAREER RESOURCE CENTER

What Is It?

The Career Resource Center is a facility established within a school building in which all career information is accumulated for student, counselor and teacher use. Typically, the CRC is a large room or suite, centrally located, which is open for student use of career materials. The Center is student oriented with physical arrangements such that individual exploration as well as small group activities are readily encouraged.

What Goes On?

With the advent of Career Education as an influence on school curriculum and the recognition of the pivotal position of career development as a serious instructional concern, the Career Resource Center represents an attempt to centralize and bring to focus the people, techniques and materials necessary to implement new instructional strategies. To this end the CRC is modeled, essentially, after the learning center concepts which have grown out of recent efforts to introduce flexibility into the administration and organization of the public schools.

The Career Resource Center is basically media oriented. During the past several years there has been a fantastic proliferation of career materials utilizing every possible mode of communication. The CRC is geared to convey information and knowledge to students through the use of computer terminals, films, filmstrips, cassettes, microfilm, simulation gaming, along with all the traditional forms of publications. Study carrels and quiet lounge areas are provided so that students may work individually or in small groups according to their needs. Open access to the Center is essential.

In addition to the full range of media available, the Career Resource Center is the "central clearinghouse" for all career related activities within the school. CRC staff members are charged with responsibility for locating and scheduling resource persons and organizing field experiences. In some Centers, staff members produce and package career related instructional packets for teachers and others requiring this service.

Center Staffing

The Career Resource Center, in most instances, is under the supervision of the school guidance department. Usually one person is designated director of the Center. Many Centers are the product of, and are governed by, a schoolwide advisory committee. Differentiated staffing is almost a necessity. The following staff members may be associated with the CRC:

1. Guidance specialists
2. Career Development (or Education) specialist
3. Work-study Coordinators
4. Placement specialists
5. Guidance paraprofessionals
6. Volunteer workers (students and adults)

These people are responsible for duties specific to their particular designation, but also are expected to contribute important information pertinent to field experiences, resource people and the general thrust of the Center. See the last part of this chapter (page 40) for a sample program for training student aides in the implementation of the Career Information System.

Information Needs

Each of the staff members listed above have certain specific needs with regard to career information. Some will be concerned with exploratory experiences; others will require accurate, up-to-date, local job market information for students about to graduate into the world of work. Still other staff persons will be working with students seeking to confirm tentative career choices.

Teachers and guidance specialists will demand career information for use in classroom activities of various kinds. In short, occupational, educational, social and personal information

relevant to the career decision-making process is an essential resource in the schools today. The Career Resource Center is the keystone for all career related activities.

Advantages of the Career Resource Center

In most secondary schools guidance and career materials can be found in numerous places such as the guidance office and/or the library. Access to these materials is frequently difficult for students and others needing career information. Priority given to the maintenance of career files is usually low and attention given to keeping information relevant and up-to-date is frequently irregular. The CRC affords the following advantages with regard to information storage and retrieval:

1. Provides opportunity to bring together all career related materials in one central location;

2. Provides opportunity to organize all career related materials systematically for more efficient use;

3. Capitalizes on the strengths of multi-media approaches to learning;

4. Provides optimum conditions for selection of career materials;

5. Provides optimum conditions for use of materials with a broad range of school staff;

6. Brings into focus all career related services students will need during their school years;

7. Provides a focal place for community resources and school to meet;

8. Provides optimum conditions for proper upkeep of career information;

Figures 1, 2 and 3 on pages 32-34 illustrate sample floorplans for a Career Resource Center.

Career Center Resource Lists

Two extensive lists of career resource materials have been prepared by Cathy Williams from Madison High School and Vickie Gardner from Hillsboro High School. Each can be requested at no charge by writing to:

Director of User Services
Career Information System
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

figure 1

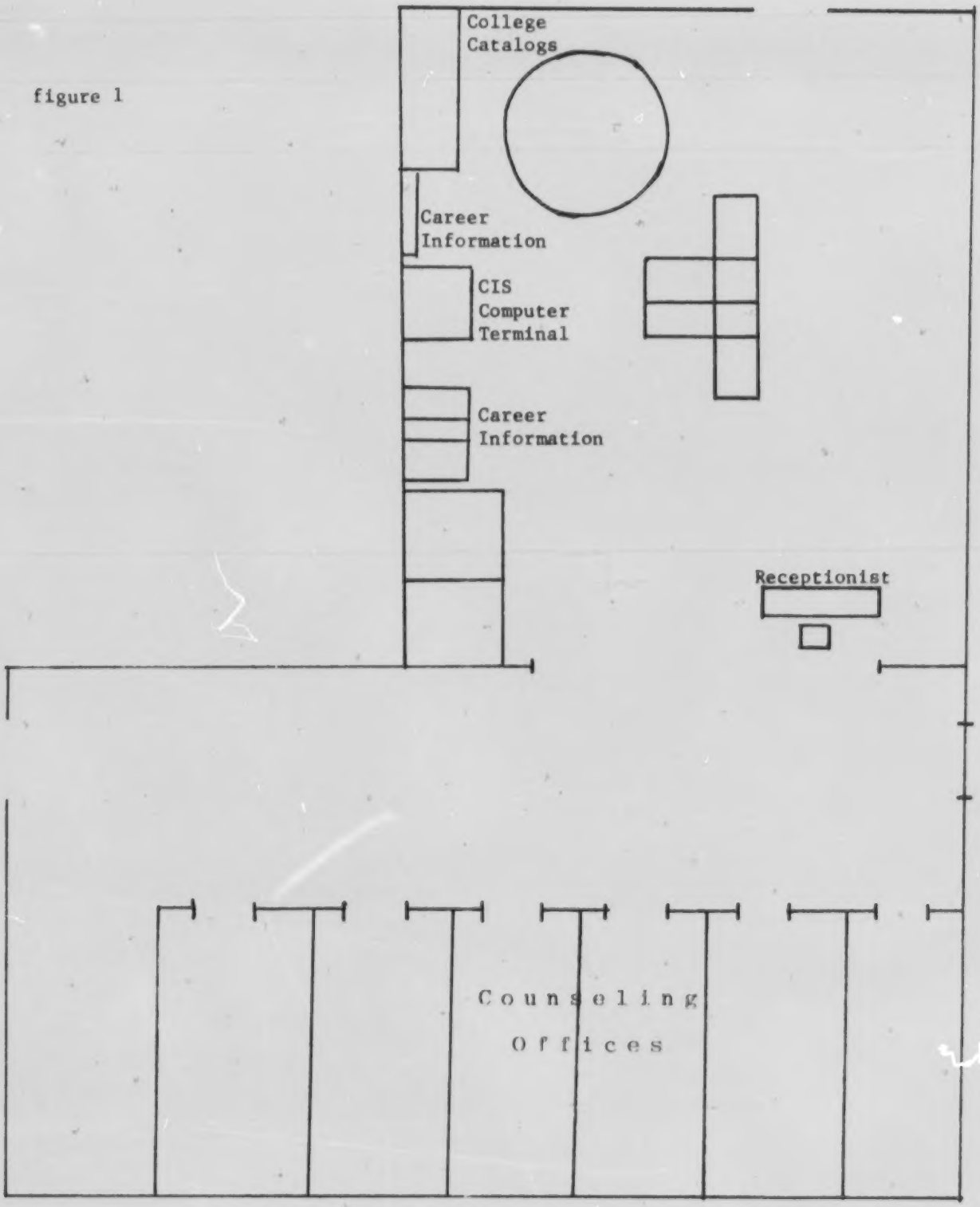

College
Catalogs
Career
Information
CIS
Computer
Terminal
Career
Information
Receptionist
Counseling
Offices

Figure 2

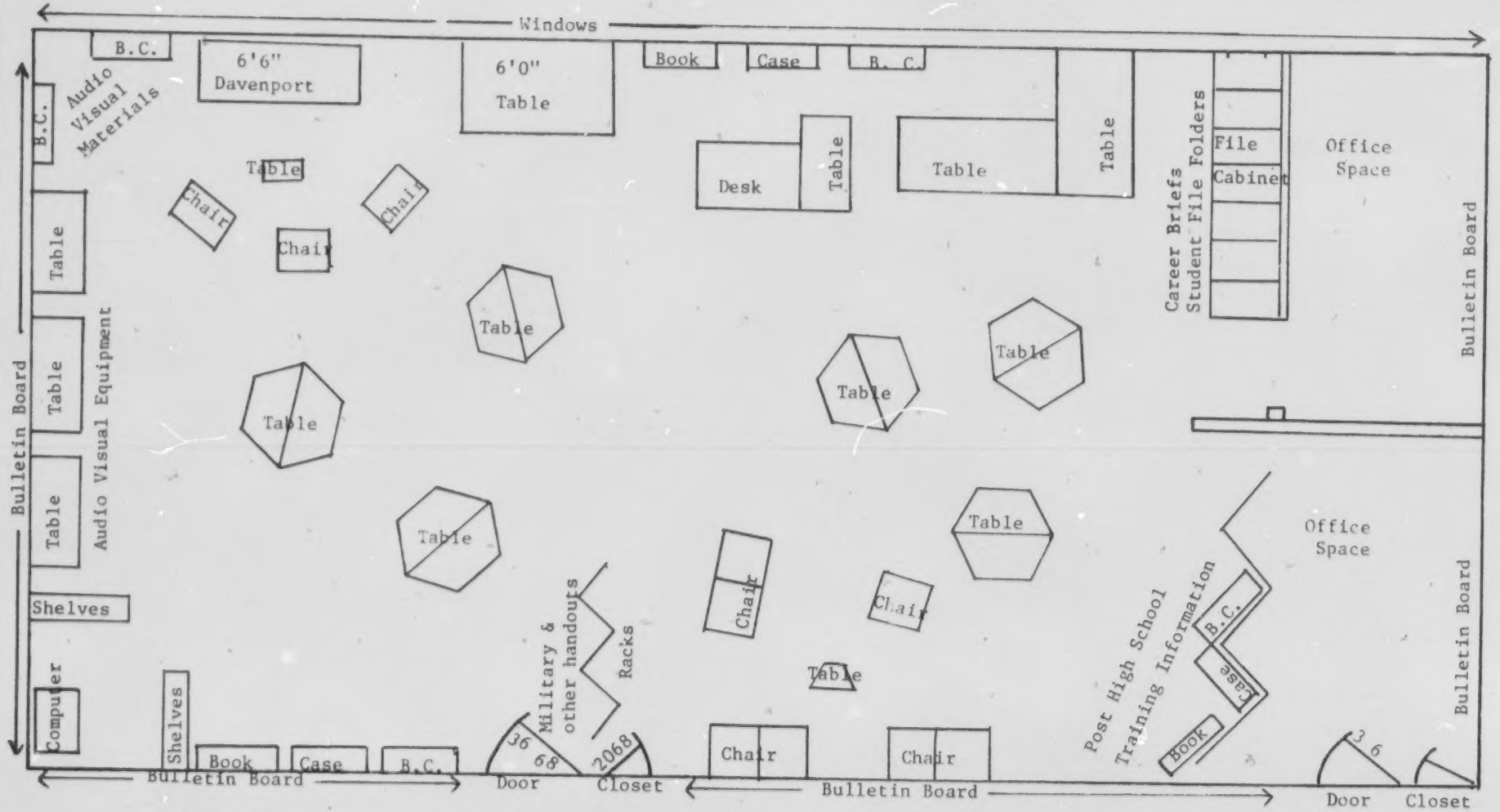
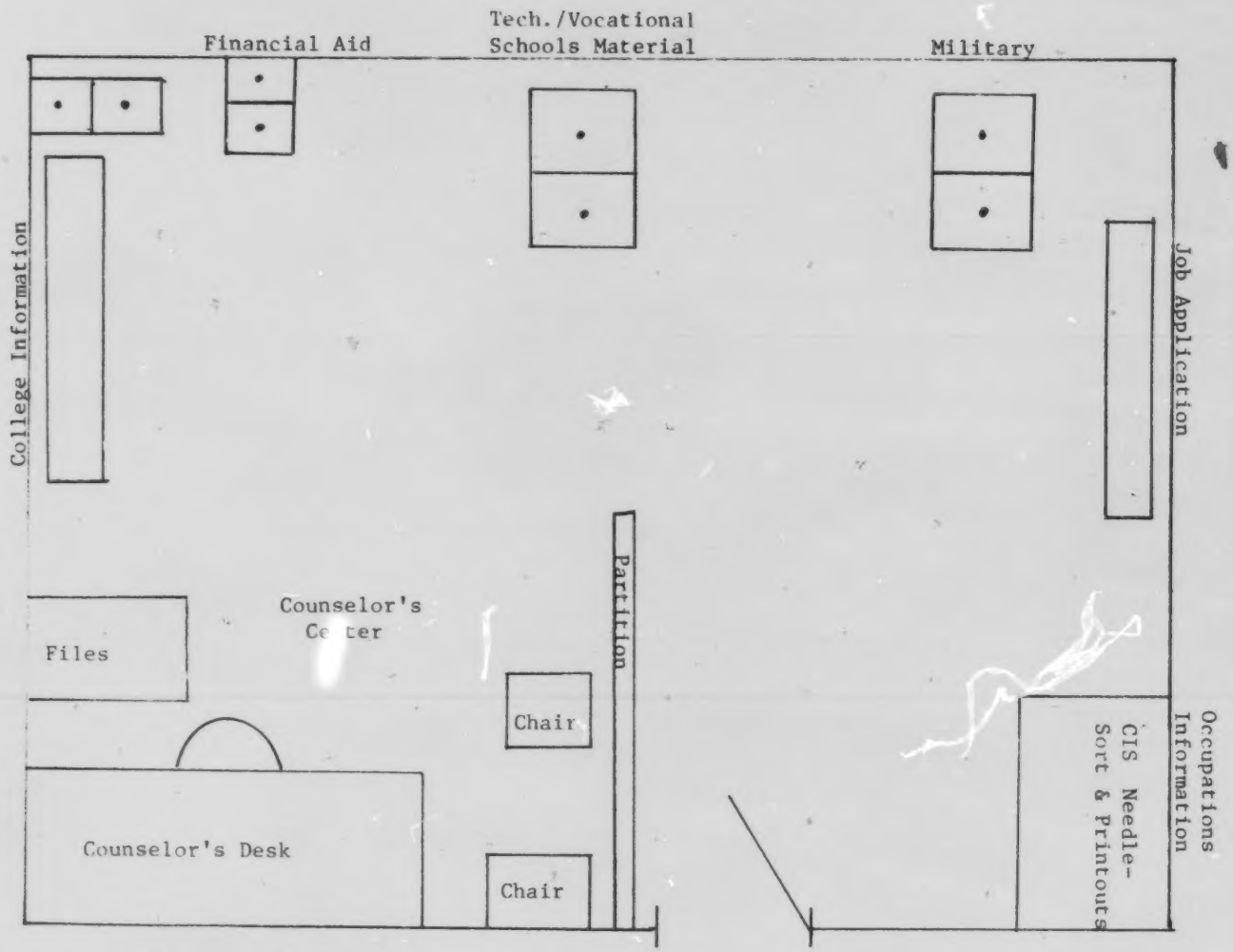

Windows
B.C.
Audio Visual Materials
6'6" Davenport
6'0" Table
Book
Case
B. C.
Table
Desk
Table
Table
Table
File Cabinet
Career Briefs
Student File Folders
Office Space
Bulletin Board
Table
Chair
Chair
Chair
Table
Table
Table
Table
Table
Table
Table
Table
Table
Audio Visual Equipment
Bulletin Board
Shelves
Computer
Shelves
Book
Case
B.C.
Bulletin Board
Door
Closet
Military & other handouts
Racks
36
68
2068
Chair
Chair
Chair
Table
Post High School Training Information
B.C.
Case
Book
Office Space
Bulletin Board
Door
Closet
3 6

figure 3


Financial Aid
Tech./Vocational
Schools Material
Military
College Information
Job Application
Occupations
Information
CIS Needle-
Sort & Printouts
Partition
Counselor's
Center
Files
Chair
Counselor's Desk
Chair

CAREER CENTERS IN A COLLEGE SETTING

Getting a Career Center Started

Commitment from a diverse group of college personnel is the key to setting up a successful Career Center. Career Centers need support from members of the counseling and academic staffs as well as from the administration. The realization by decision makers among the professional staff that the majority of students in Oregon colleges are career oriented and desire the information a Career Center can provide should be the first step in getting a Career Center started. Without this understanding and commitment, the Career Center may be plagued by a lack of financial support, inconsistency in management, and even mistrust of the motives of Career Center staff.

Location of the Center

The right location is most important in determining usage of the Center. Several factors should be considered in finding the best location:

1. The location should be easily accessible to college students, staff, and visitors from the community;

2. It should be close to heavy student traffic so students can be attracted;

3. The location should appear casual so people will feel comfortable about spending some time there and returning later.

Experience indicates that finding the "right" location the first time is next to impossible, but with some patience through a trial and error period, a best location for the Career Center eventually materializes.

Staffing a Career Center

Most college Career Centers have been successful when Center staff members clearly understand the Center function, their function within the Center, and their individual responsibilities.

Although a professional from the staff should be appointed to have overall responsibility for the Career Center, hiring a full-time paraprofessional to oversee its daily functions can be a very satisfactory arrangement.

Career Center paraprofesionals are members of an emerging occupation that promises a good future, ample benefits, and opportunities for upward mobility. Such persons should possess the ability to work with others, an interest in career development and information, a degree of organizational ability, and flexibility in developing and implementing plans. Also important is the ability to train student aides and support the work of assistants.

Materials in the Center

Even with moral and financial support from the administration, most college Career Centers have to operate on limited budgets when acquiring supplies and materials. Consequently, the Center staff must be creative in utilizing resources that already exist in the institution (printing, library, counseling supplies, etc.) as well as in obtaining assistance from community, state or national organizations.

Some basic reference materials in addition to a computer terminal to access CIS are: Occupational Outlook Handbook (1976-1977) and the Dictionary of Occupational Titles. Internal materials such as your college's catalogue, printed departmental brochures, and information on other centers such as study skills centers are essential to display.

Several college Career Centers have used large picture boards to help delineate the "Center Area." Enlarged photographs or pictures of people in various occupations or training can normally be produced at a college's graphic arts center or borrowed from commercial displays in the community. Care should be taken, however, that the pictures are representative of the contemporary work scene, which show women and minorities in nontraditional occupations. See the last part of this chapter (page 45) for some more ideas about how to attract attention to your Career Center.

Furniture and Center Arrangements

The Center staff may need to do some experimenting with a variety of tables and shelving to create the casual atmosphere desired and to facilitate use of the computer terminal and other

center resources. One very successful college Career Center found that round tables made it possible for students to gather easily and talk with one another.

Seating the user at the computer terminal facing away from traffic and observers tends to give him or her privacy and does not detract from what's happening between the user and the interaction with the computer. In fact, at one Center the staff moved the users' seating around so that they faced the traffic and onlookers. Center staff found this arrangement inhibited some users and significantly reduced use of the terminal.

In the selection of what type of terminal to install in your Center, care should be taken to weigh the advantages of each. Terminals with line printers (TTY 33 or TTY 38) are common because of low cost and maintenance. In addition, they provide hard copy to the user so he or she can take away a complete record of the information accessed from the terminal. The noise from these types, however, may be a major consideration, depending upon the setting of the Career Center. Several Career Centers in Oregon have built "cage" type facilities to partially enclose the terminal to reduce noise. It is interesting to note that the noise generated from the line printer in these machines does attract attention, and thus serves a promotional function for the Center.

Quiet terminals with speed variations (CRT type or terminals with thermal printers) are available at slightly higher rental or purchase costs. Generally, a phone company representative or a private vendor of computer terminal equipment can assist a Center's staff in selection.

Working With the Counseling Staff

The college's counseling staff, particularly those individuals who assist their clientele with career decision making, should be closely involved in getting a Center started and refining its functions as it develops. However, all counselors should be given periodic in-service training and encouraged to refer students to the services of the Center when it is appropriate.

The Career Center's paraprofessional staff can assist in keeping good communication flowing to counselors by referring students for counseling, providing printouts of information to counselors on request, and by telling counselors of specific students who have been assisted by the Center.

The question usually arises, "Is a professional counselor with full credentials always needed in the Career Center?" Experienced Center aides report that most students' problems are not "life and death." The aide can often listen to the student and provide helpful information. Most students who visit a Career Center do not need the immediate attention of counselors. However, in situations where the need is apparent, the process for direct referrals should be established.

Student Interface and the Computer Terminal

Keep in mind that people using the terminal are not sophisticated computer people and therefore need assistance in using the equipment. Experience indicates that most users are not likely to seek help with the terminal when they need it; instead they either leave the system with unsatisfactory results or blunder along with a fair degree of frustration. The Center personnel should provide the initiative in offering assistance and explanation to the user. With some experience, Center personnel report that it becomes rather easy to decide who does and does not need assistance.

Several techniques have proven successful at college Career Centers:

1. Provide ample contact and orientation for the beginning user. Log-on procedures and use of the CIS User's Handbook need explanation by the Center staff.

2. Leave those students alone who do not seem to want assistance. However, it is important to have aides easily accessible -- out in the open and not hidden in an office.

3. It is important to some students to have someone available who can spend time talking and provide reassurance.

Publicity and Communications

Heavy usage of the Career Center and its resources can be attributed in part to extensive publicity. Successful Center operations have contacted school and local community newspapers and other media to let the public know what's happening. Written information about the functions of the Center distributed throughout the campus and to institutional staff can help. At one community college the Career Center aide takes printouts of career information to each department head and asks for their comments and suggestions. This provides exposure to the System and assists in the preparation of more accurate information.

On most campuses, there is a PR staff that is willing and able to assist with publicity and open channels of communication.

Setting up Career Centers at fairs and shopping centers by several Oregon community colleges has served to interest great numbers of the adult public in the Career Information System as well as in specific community colleges (see pages 47-48). Although these demonstrations have not been extended longer than a week or two at any one time, several colleges' administrators have considered providing permanent public information centers that include a career information component. By writing or contacting CIS staff, additional information (costs, staffing, evaluation, etc.) can be obtained about such community outreach endeavors.

TRAINING ASSISTANTS

Selecting and training assistants for the Career Center is an important function of the Center staff. On most college campuses, work-study students and possibly volunteers are available. These people can be trained to assist with the staffing of the Career Center. High school students are always willing to help in such a social service function.

Aides should be selected for their availability, their ability to work with people, and their interest in assisting people with finding career information.

Training the aides might begin with asking each person to become familiar with each resource in the Center, especially all components of CIS and the operation of the computer terminal. One head of a Career Center, a paraprofessional, suggests the following steps in training student associates:

1. Give the student a general overview of all resources in the Career Center.

2. Explain CIS and its components fully, asking the aide to carefully study the CIS User's Handbook.

3. Ask the student aide to fill out the QUEST questionnaire, look at occupations, training programs, and schools.

4. Assist the student with log-in procedures with the computer terminal and access to CIS. It is helpful to attach a set of operating instructions to the terminal or in plain sight for the aide and users of the System.

   Then assist them with understanding QUEST, its operating instructions (i.e., WHY NOT, CHANGE), access to each of the information components, and how to log off. Encourage them to return to the terminal for another 30 minutes to an hour of experimentation.

5. A group follow-up session with all aides may be very constructive.

6. It is important to stress that an aide should not panic if a problem develops with the terminal. Instead, try and logically determine what may be wrong by reviewing operation steps.

7. Student aides should also become familiar with referrals from and to the counseling staff.

8. This initial training process may continue for several weeks. After the training is completed, it is a good idea to give the student aide a title like "Career Center Associate."

If aides are properly trained, they can be an effective tool in assisting while at the Center, but also in encouraging friends and acquaintances to use the Center.

Occasionally, aides should be given a review of the Center's function and asked to report on things they have been uncomfortable with or have suggestions for improvement. Aides that lose interest in the job or have time conflicts may need to be released. Training new ones will no doubt become a continuous process throughout the school year.

Another approach to training student aides is presented in "recipe" format on the following two pages.

Career Information System

TITLE: TRAINING STUDENT AIDES IN CIS
by Sue Taylor Highland Park Intermediate School Beaverton, Oregon

OBJECTIVE: To train student aides to assist students in the use of CIS information files and the computer terminal.

TIME: Two sessions - 1 hour each
Follow up sessions - 15 to 30 minutes

MATERIALS & FACILITIES NEEDED:

Computer terminal and user number and password to access CIS
Paper, ribbons and supplies supplied by in-house computer facility
Forms for follow up (see following page)

METHODOLOGY:

Session 1 (1 hour)

Familiarize aides with basic operation of computer terminal, log-in procedures, on-line procedures. Ask each to log on to CIS program.

Run each aide through program.

Familiarize aides with changing answers, WHY NOT, asking for DESC, PREP, PROG, SCH, XPLOR & BIB files.

Session 2 (1 hour)

Assisting - The aides are asked what they would do in certain situations -- how they would guide others. Ask them questions such as:

a. What if the student receives no occupations?
b. What if the student receives 150 occupations?
c. Have the aides encourage students to ask for DESC, PREP, PROG, SCH, XPLOR & BIB files.
d. Make sure the aides have a knowledge of what questions limit the student's occupation choices.
e. Encourage aides to be enthusiastic about the job they are doing and encourage others to use CIS.

Follow-Up Sessions

Have each aide fill out short follow-up form on each student. Meet with the aides at the end of every day for the first week to discuss the day's activities. This could continue regularly until you feel the aide has a good rapport with the students. Meetings could then be decreased to once a week.

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Aide: _____

Date: _____

Student Name_____

1. How many occupations printed out? _____

2. Which files did the student you were assisting use? (Check the ones used.)

DESC _____	QUEST _____
PREP _____	BIB _____
PROG _____	WHY NOT _____
SCH _____	CHANGE _____
XPLOR _____	

3. Comments on student attitude toward program:

4. General comments:

Career Information System

TITLE: "WHICH CAREER IS FOR YOU?"
by Vickie Gardner Hillsboro Senior High School Hillsboro, Oregon

OBJECTIVE: To attract user's attention to specific occupations as well as to the CIS terminal and/or needle-sort.

TIME: Each arrangement could remain for a month or more

MATERIALS & FACILITIES NEEDED: Occupational Information and Program printouts -- CIS User's Handbooks -- CIS Terminal and/or Needle-Sort -- Bulletin board -- Colored paper, letters, tacks, scissors, etc. -- Miscellaneous pamphlets, etc. on careers, occupations & the world of work -- Occupational posters such as those obtained from Chronicle Guidance Publishers, Inc., Moravia, New York 13118

METHODOLOGY:

1. Place bulletin board above terminal or near needle-sort materials.
2. Place occupational posters, pamphlets, and other visual aids on the bulletin board. (Visual materials can be geared to the level of your audience.)
3. Use big, bold letters that say
   "Which Career is for You?"
   "After High School, What?"
   "College?"
   "Vocational School?"
   "Military?"
   "Job?"
4. Attract attention! You want to provide visual stimulation for users and thus encourage use of the terminal or needle-sort materials.

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Career Information System

TITLE: MEETING THE PUBLIC WITH OCCUPATIONAL AND EDUCATIONAL INFORMATION
by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: To introduce members of the general public, who normally do not have access to CIS and occupational and educational information, to the CIS information files.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

1) CIS computer terminal with 12-hour access to the program; 2) generous supply of CIS computer handbooks & brochures; 3) college's or school's literature; 4) table and several chairs; 5) CIS occupational and educational printouts (optional); 6) resource person(s) available.

METHODOLOGY:

Any community college or school district may want to provide a service to the community by placing a computer terminal and counseling personnel (and/or paraprofessionals) in shopping centers to make CIS available to the public. Past experience with such activities indicates that people will use the terminals if the activity is advertised and there is sufficient staff to provide assistance to CIS users. The center should be set up for at least a week in a particular shopping center.

Arrangements to be made.

1. Each terminal must have its own telephone line which needs to be ordered from the telephone company 3 to 4 weeks in advance (cost is about $60 for installation and line).
2. Arrangements should be made with the shopping center for a centrally located site.
3. At least two terminals should be made available for the endeavor. Terminals can easily be installed by someone from the sponsoring school or district.
4. Newspaper articles, TV and radio spots should be run in advance to publicize that counselors and CIS will be at the shopping center.
5. Some type of booth should be set up at the center to formalize the presentation of CIS.
6. Sufficient copies of CIS User's Handbooks, other promotional material, and in the case of community colleges, admissions and financial aid information, should be on hand.
7. If the school wishes to make a special effort to get people with physical handicaps or with transportation problems to attend, arrangements could be made for a special phone number to be publicized and someone at the school at that number could make a limited number of appointments for people with these special problems.

(continued)

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METHODOLOGY (continued)

Staffing the Center.

Ideally there should be one aide per terminal at the center to assist people in operation; one person to schedule people for use of CIS, since often there will be waiting lines; and at least one counselor to answer questions. All personnel involved should be very familiar with CIS (how to access it, information available, etc.). The center should be open as long as possible each day. For additional information, contact John Clyde at CIS in Eugene (686-3872).

RECIPES

V

INTRODUCTION TO THE RECIPES

During the several years that the Career Information System has been operating in schools and social agencies, word has gotten around at inservice training sessions and informal visits that a lot of people out in the field are using CIS in effective and thought-provoking ways. It seemed that a vehicle to facilitate the sharing of these innovative practices was needed.

To meet this need a class was sponsored by CIS spring quarter of 1975 in the Portland area and participants were asked to collect good ideas in the use of the Career Information System from practitioners. These "recipes" were only the beginning and many have been added during 1975-76.

"Recipes" in the context of the CIS implementation handbook are simply instructional materials, activities or guides to use in implementing the Career Information System. The recipes are designed to give CIS users some new ideas for ways to get the most out of CIS in their school, college or agency.

HOW TO USE THE RECIPES

On the following page you will find a Master Index that breaks individual recipes into appropriate subject groupings. The recipes appear in order after each subject heading.

This year three major groups of recipes have been collected into learning packages--Guidance, Language Arts and Social Studies. These materials are followed by shorter subject matter groupings: Science, Mathematics, Physical Education, Art, Personal Finance, and, also new this year, the Career Clusters section.

Located in the Career Clusters section are recipes pertaining to Business, Industrial Arts, Health, Child Care and Food Services.

Look through the recipes in all the sections. You may find an interesting classroom activity in another subject matter area that is related to your specific area of interest.

WE WOULD LIKE TO HEAR FROM YOU

CIS plans to publish another group of recipes to be added to the handbook after the first of the year. We encourage you to send us your ideas for innovative ways to use CIS. Tell your colleagues; they may have some creative ideas on the subject. We have provided several blank recipe pages in the back of the book (Appendix A); feel free to reproduce extra copies and use them to add recipes that your school or agency finds useful. If you would like to share your ideas with other users in the state, send CIS a copy and we will try to include as many new recipes as we can. It probably will not be possible to reproduce all recipes, but the entire file of recipes submitted by users will remain available at the CIS office in Eugene. Send your recipes to:

Office of the Director
Career Information System
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403

MASTER INDEX

MASTER INDEX

Subject Areas & Recipes

Subject Areas & Recipes	RECIPE NUMBER	CLASS PERIOD ACTIVITY	1 WEEK ACTIVITY OR LONGER	CLASSROOM ACTIVITY	FIELD ACTIVITY	RESOURCE CENTER ACTIVITY	INTRODUCTORY ACTIVITY	GROUP ACTIVITY	INDIVIDUALIZED ACTIVITY	TERMINAL USED	NEEDLE-SORT USED	JUNIOR HIGH LEVEL	SENIOR HIGH LEVEL	COLLEGE LEVEL	ADULT LEVEL
GUIDANCE															
A. Knowing Yourself															
Do You Want to Work with People?	1	X		X			X	X	X		X	X	X		
Learning Package	2		X	X		X	X		X	X		X	X		
What To Be--That Is The Question	3		X	X	X	X	X		X	X	X	X	X	X	X
Quick Wits	4	X		X			X	X	X		X	X	X		
Using CIS with the Strong-Campbell	5	X				X	X		X	X	X			X	X
What Shall I Do Now?	6	X		X		X	X		X		X	X	X	X	
B. Planning Your Future															
Educating Yourself	7	X		X			X	X			X	X	X		
Use of CIS at (CE)$_2$	8		X	X		X	X		X	X			X	X	X
Education & Training	9	X		X			X	X	X		X	X	X		
This is Your Last Chance	10	X		X		X			X	X			X		
You and Your High School Education	11		X	X		X	X	X	X	X		X			
CIS and Academic Advising	12	X				X	X		X	X	X			X	X
Planning Your Post High School Education	13	X		X		X	X	X	X	X	X		X		X
Life-Line to Your Career	14		X	X				X	X	X			X	X	X
Now Hear This!	15		X	X		X		X	X	X	X			X	X
You! Performing Live!	16		X	X		X		X		X	X			X	X
Selling, Persuading and Your Future Job	17	X		X				X	X		X	X	X		

LANGUAGE ARTS																
Panel of Experts	18	X		X		X			X	X	X	X				
Pre-Work Observation Activity	19		X	X	X		X	X			X	X	X			
Ready - Begin	20	X		X	X			X	X			X	X			
To Tell the Truth	21	X		X			X	X				X	X			
Treasure Hunt	22	X				X	X	X		X		X				
Is It All It's Cracked Up to Be???	23		X		X	X	X	X	X	X	X	X	X			
Stump the Students	24	X		X		X		X		X	X	X				
Dear Diary	25	X		X		X			X	X	X	X				
Data, People, Things	26	X		X		X			X	X	X	X				
Research Paper	27		X	X		X			X	X	X	X	X			
Understanding Interests	28		X	X		X		X		X	X					
Role of Work	29	X		X		X	X	X	X	X	X	X	X			
Vocabulary and the World of Work	30	X		X				X	X		X	X	X			
SOCIAL STUDIES																
Cartons of What??	31	X		X				X	X		X	X	X			
How Well Do You Know Your Parents?	32	X		X		X			X	X	X	X	X			
Interests, Occupations & Employment	33	X		X	X	X	X		X	X	X	X				
Not Gold but Sand and Gravel	34		X	X	X	X	X	X	X		X	X	X	X		
Staff of Life	35	X		X	X	X			X	X	X		X			
What Shall I Do Now?	36	X		X		X	X	X		X	X	X	X			
Where To From Here?	37	X		X		X	X	X	X	X	X	X	X	X	X	
Worker Interest Patterns	38	X		X			X	X				X				
Physical Handicaps	39	X		X				X	X		X	X	X			
Moving Right Along	40		X	X		X		X	X	X	X	X	X			
Necessity is the Mother of Invention	41		X	X		X		X	X	X		X	X			
Social Security Card	42		X	X		X	X	X	X	X		X	X			
U.S.A. Population Growth	43		X	X		X	X	X	X	X	X	X	X	X	X	
You Want To Do What Where???	44	X		X			X	X			X	X	X			

	RECIPE NUMBER	CLASS PERIOD ACTIVITY	1 WEEK ACTIVITY OR LONGER	CLASSROOM ACTIVITY	FIELD ACTIVITY	RESOURCE CENTER ACTIVITY	INTRODUCTORY ACTIVITY	GROUP ACTIVITY	INDIVIDUALIZED ACTIVITY	TERMINAL USED	NEEDLE-SORT USED	JUNIOR HIGH LEVEL	SENIOR HIGH LEVEL	COLLEGE LEVEL	ADULT LEVEL
SCIENCE															
Comparing Futures in Science	45		X	X	X	X		X	X	X			X	X	X
Our Human Environment	46	X		X		X			X	X	X	X			
Viewmaster	47	X		X	X	X	X	X	X	X			X	X	X
Our Feet on the Ground	48		X	X	X				X		X	X	X		
MATHEMATICS															
What a Difference Math Makes	49	X		X		X		X		X		X	X		
Math & Occupations	50	X		X				X			X	X	X		
Measuring Tools	51	X		X		X		X	X	X		X			
PHYSICAL EDUCATION															
Finding Out About P.E. Careers	52		X	X	X			X			X	X	X		
ART															
Careers in Art	53		X	X		X			X	X	X	X			
PERSONAL FINANCE															
Warning: This Occupation May Be Hazardous	54		X			X	X	X		X		X	X	X	
Economics and Your Life Style	55	X		X				X	X		X	X	X		

CAREER CLUSTERS																
Business																
Exploring Business Careers	56		X	X	X			X	X	X	X		X			
Industrial Arts																
Tools Used Within Shop Careers	57	X		X		X		X	X	X		X				
Health																
Hospital Connection	58		X	X	X	X			X	X		X	X			
Careers as Health Technicians/Technologists	59		X	X	X			X	X		X	X	X			
Child Care																
Child Care Services	60		X	X	X	X		X	X	X		X	X			
Food Services																
Commercial Kitchens	61	X		X	X	X		X	X	X		X	X	X		

GUIDANCE

The following collection of CIS* instructional materials or "recipes" has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs. These materials may be of particular assistance to junior and senior high school Guide Teachers.

A. Knowing Yourself

In this section of materials, individuals are helped to identify their aptitudes and personal preferences in an effort to heighten self-awareness. Attempting to understand who and even what you are is essential when contemplating job possibilities.

RECIPES

1. Do You Want to Work with People?
2. Learning Package
3. What To Be -- That Is The Question
4. Quick Wits
5. Using CIS with the Strong-Campbell
6. What Shall I Do Now?

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE: DO YOU WANT TO WORK WITH PEOPLE?

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: To allow junior & senior high school students to examine how working with people may or may not influence their job possibilities.

TIME: 1-2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
Worksheet (sample follows)

METHODOLOGY:

1. Students may work individually or in small groups.
2. Have the students answer question #19-23 - "Working With People" with "NOT". Have the students list the five most interesting jobs that fall out when they answer the questions with "NOT".
3. Have the students explain how each of the five jobs involve working with people.
4. Have the students list five jobs that are left on the needle.
5. Of the five jobs, have the students explain whether the person in that type of job works mostly with things (machines) or information (data).
6. Of the ten jobs they have investigated, have the students choose one. Does that job involve working with people, data, or things?
7. A class discussion of the ways that various students feel about the issue of working with people might be interesting.

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NEEDLE-SORT/CAREER AWARENESS AND EXPLORATION Name_____

What happens when you answer "not" to all the WORKING WITH PEOPLE questions?
List 5 of the most interesting jobs that fall out for holes 41-45.

a._____ c._____

b._____ d._____

e._____

Tell how each job iisted above involves work with people:

a._____

b._____

c._____

d._____

e._____

List 5 interesting jobs still on your needle:

a._____ c._____

b._____ d._____

e._____

For each job just listed tell whether the person works mostly with <u>things</u>
(machines) or information (data).

a. _____things _____data

b. _____things _____data

c. _____things _____data

d. _____things _____data

e. _____things _____data

Circle the job listed any place on this page that interests you most.
Do you think you prefer working with people_____, data_____, or things_____?

TITLE: LEARNING PACKAGE
by Neil Branson Mohawk High School Marcola School District

OBJECTIVE: To use the CIS computer program in an effort to learn more about yourself in relation to the world of work.

TIME: Several days to a week depending upon the number of students involved.

MATERIALS & FACILITIES NEEDED: CIS User's Handbooks -- Learning package (sample follows) -- CIS Terminal -- Log-in instructions from terminal -- Dictionaries -- Felt pens -- Occupational Outlook Handbook -- Access to library

METHODOLOGY:

1. Each student works through the learning package, following the instructions carefully.
2. The staff member needs to keep all the materials and facilities available and the students informed about how to work through any problems they encounter.

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Name_____

LEARNING PACKAGE

The purpose of this learning package is to allow you to utilize the Career Information System computer program in an effort to learn more about yourself in relation to the world of work. Through this program, you will be exposed to some possible occupation selections, ways to prepare, and institutions that offer that preparation for employment in any particular field of your choice. The program's most important feature is exposing you to careers, to the concept of preparation and to the fact that there are many avenues to training.

With this package you are given a Career Information System "User's Handbook." There will be instructions in this package and in the handbook that you will have to follow. (An important attribute for gaining and keeping employment is the ability to follow instructions.) You will follow the steps in the package in the order they are presented.

Before we begin, you must realize that the information, and the list of occupations that you receive, and the entire benefit you get from this program depends on what YOU put into the computer. You can change your input at any time. You can come back and do the program over and over (if time allows). There is no absolute truth or promises coming from this program. You will be given ideas about what you might like or be able to do based on what you tell the computer.

Do your work in pencil so you can change your answers when you want to.

1. Put your name on this learning package and on your User's Handbook.

2. Read page 1 of your Handbook. Which of these questions are you most interested in?

3. You are now going to fill out the QUEST questionnaire. Turn to page 2 in your Handbook. Read the information on the top of page 2. Remember, if you do not know how to answer a question, seek help. The way you answer these questions will determine the type of information you get back from the computer. Below are helpful hints to some of the questions. Use these hints, they will help you in determining your answers. READ EACH QUESTION & RESPONSE CAREFULLY.

QUEST QUESTIONS

Question #2. This means if you have very bad eyesight even WITH glasses. If you wear glasses but have good eyesight with them, your answer should be NO.

Question #4. The first response is asking you if you will take a job in the COUNTY, NOT COUNTRY (e.g., will you work only in Lane County?)

Question #7. Use a dictionary. Look up the word APPRENTICESHIP. Put the meaning of the word apprenticeship here: _____

_____

Question #8. If you can thread a needle, put small nuts and bolts together, pick up small objects, type well, work with small things, then your answer should be "Very Good." Look up the word DEXTERITY. What does Finger Dexterity mean?

_____

Question #9. Can you pick out errors in your typing, find mistakes in writing? If so, then answer "Very Good."

Question #11. This question is NOT asking you about calculus, trigonometry, or even algebra, but about simple addition, subtraction, multiplication, and division.

Question #12. Have you been able to follow the instructions so far? Do you have to be told how to do things many times? Can you figure things out for yourself?

Question #16. Look up the word ANALYZING. Put the definition here: _____

_____

Question #17. Look up the word LABORATORY. Put the meaning down here:

_____

Question #19. What is counseling? Look up the word COUNSELING and put the meaning down here: _____

_____

Question #20. What is bargaining? Look up the word BARGAINING and put the meaning down here: _____

_____

Question #21. Supervision means: (look it up) _____

_____ Remember, teaching can mean a lot more than being a high or grade school teacher. People teach skiing, welding, sewing, and many other things. There are many types of schools besides grade and high school.

Question #22. Look up the word PERSUADING. It means: _____

_____

4. Now you have finished QUEST. Go back over and read it once more and check to make sure you circled the correct responses.

5. On page 7 of your User's Handbook, answer the question "What occupations are you now considering?" Write your answer here also: _____

_____

YOU WILL FIND A LIST OF OCCUPATIONAL TITLES AND CODES BEGINNING ON PAGE 8 OF YOUR HANDBOOK.

6. You are getting WARM. Soon you will be on the computer terminal. Before you go to the terminal, you should review the instructions on how to "log-in", what things you can do while you are answering the questionnaire, and what things you can do after you have answered it. Turn to page 24 of your Handbook to learn how to "log-in". Logging-in only means to get the terminal ready to respond to you and the information you are giving it. Read the instructions on page 24 about "How to Use the Computer Terminal " carefully. Your instructor will have additional instructions for your terminal.

Read the GENERAL PROGRAM INSTRUCTIONS on page 24 and reread the instructions for "log-in" procedures. Now take the following quiz.

_____

QUIZ

a. Type in _____ if you want to go to the beginning of the program.

b. The account number and password for our school is _____.

c. If the program types in "ILLEGAL ACCESS" you must _____.

d. When you are through with the computer, you type in _____.

e. Each time you have typed a command on the terminal, you must punch the _____ key to get the computer to respond.

_____

7. Moving right along, you need to read the instructions to QUEST found on page 25. Read over these instructions. You will make use of "HOW MANY, LIST, WHY NOT, and possibly BACK UP and CHANGE. NOW GET IT GOING . . . you are ready for the terminal.

A. Make arrangements to use the terminal, following the established procedures.

B. "Log-in", following the instructions on page 24 of your "User's Handbook".

C. You will type in QUEST and do the questionnaire. The terminal will tell you how to answer the questions.

D. Type in HOW MANY, after questions 7, 15, 18, 20, & 23.

8. At the end of the questionnaire you will be told how many occupations are in your list.

9. If you have a long list, then look over the answers to the questions in your handbook. If there are some marked NO PREFERENCE, see if you can make a choice. Go through and make any changes in your book. Then type in CHANGE and the terminal will give you instructions on how to change answers. After you make the changes the terminal will tell you how many occupations are on your list. Type LIST to get a list.

10. Look over your list and then look back to page 7 of your handbook or on page 3 of this learning package and see if any of the occupations you listed there are not on your print-out. If there are any you were interested in and they were not in your print-out, type in WHY NOT and the occupation code number. The computer will tell you why these occupations were eliminated from your list. If all your chosen occupations are on your list, then look on pages 8 to 13 of your handbook and find an occupation that you might be interested in which is not listed on your print-out. Type in WHY NOT and the occupation's code number.

11. Find the part of the print-out where you typed in WHY NOT. The computer answered your request by giving you a list of questions and how you answered them. Because you answered these questions the way you did, the job you asked WHY NOT about was eliminated. Now look at the questions in your handbook and see if you would change your answers if it would mean being able to be employed in that job. If it is about ability, would you gain the needed ability? If it is an interest, would the job make the interest more enjoyable? In the space that follows, write down the question numbers and answers you would have to change, and the way you would change them to have the occupation show up on your print-out:

12. Type CHANGE and follow the instructions for changing any answers you listed above. Then type LIST. You are going to be looking at your list and deciding what jobs sound interesting to you and which ones you would like to find out about. (You may want to type STOP and come back later.)

    A. Underline with a GREEN pen the jobs you have heard about and that you would like to get some information about, or jobs that just sound interesting.

    B. Underline with a BLUE pen the jobs that you have never heard about.

    C. Underline with a YELLOW pen the jobs you have never heard about and that sound interesting to you.

    D. Underline with a RED pen the jobs that you think you would not like to do at all.

    E. Now of all the jobs that you think you would like to get some more information about, choose the <u>one</u> that is most interesting to you. Also choose one of the jobs that you would <u>not</u> like to do, or one that you know little about and are not really interested in. Underline both of them with a BLACK pen.

13. Now you have two occupations you are going to get some information about. For the one you marked as being least interesting or that you knew little about, (underlined in BLACK and RED, or YELLOW), you need to write the occupation and its code number in the space provided in part A of Item 18 on page 6 of this learning package.

14. For the one that is most interesting to you, (underlined in BLACK and GREEN), you need to write in the occupation and its code number in the space provided in item 22, page 6 of this learning package.

15. Before you go to the computer terminal, you need to get another piece of information so you can move quickly through the program. Look on page 23 of your User's Handbook. There you find listed a number of information topics that the terminal contains for the list of schools on pages 19-22 of the Handbook. Choose topics in which you are interested for the schools that you might attend. For example, do you want to know about cost? Then, put down code 85. What about living quarters? Look at codes 80 to 84. Look them all over and choose the five that seem most important to you. Now write those code numbers in question 21 on page 6 of this learning package.

16. Read all the "Instructions to INFO Files" on page 25 of your Handbook. This is the type of information you can get from the computer terminal.

17. Make arrangements to use the computer terminal, following the established procedures.

18. Log-in on the computer using the same procedures as the first time. Look back to page 3 of this learning package for assistance.

    A. When the computer asks you what you want to do, type in DESC_____. You will be using this code number in this instruction (instruction A) and in instruction B, C, E & F which follow. You will use the first two digits of the code number in instruction D.

    B. When the computer is through with the description, type in BIB and the same code number from instruction A above.

    C. Next, you will type in PREP and the same code number from instruction A.

    D. Type in PREP and the FIRST TWO DIGITS for the code in instruction A.

    E. Now type in VISIT and the occupation code number from instruction A.

    F. This time, type in XPLOR and the same occupation code number.

19. Now read the PREP statement to see what types of Programs of Study and Training can help you get into this field. Type in PROG _____. When the computer is through with the information it has to give you, it will ask you if you want a list of schools. Type in YES.

20. After the computer has told you the schools, choose three of the schools that you want to get more information about. Their codes are next to their names in the list that has just been printed, and on pages 19-22 of your User's Handbook. Example: 21113 SOUTHERN OREGON STATE COLLEGE, ASHLAND. It is a five-digit number!!! Now, type in SCH and those three school codes. Separate each school code with a comma. You can type in FEWER THAN THREE, but do not type in MORE THAN THREE. There is room on the paper for only three schools at a time.

21. After you type in the school codes, the computer will print "WHAT DO YOU WANT TO KNOW ABOUT THE SCHOOL?" TYPE IN THE SCHOOL TOPICS. (These are the ones you chose earlier.)

    _____, _____, _____,

    _____, _____

22. Now you are going to get a description of the occupation from your print-out that you thought you would be most interested in. Type in DESC_____.

23. Now you have some more information to work with away from the classroom. Type in STOP, and log-out of the computer. Bring your print-out with you.

Now you are going to work with the information you have received from the computer terminal.

24. Read the description of the occupation that the computer gave you.

    A. Underline with a YELLOW pen the things that you already knew about the occupation.

    B. Take a GREEN pen and underline the things that sound the most interesting about the occupation.

    C. Use a RED pen to underline the things about the occupation that you do not like.

    D. Is the job like you thought it would be? _____

    E. Did you know this much about the occupation before you got the information? _____

    F. Is the employment outlook very good for this occupation? _____

    G. Is the salary one you could live on? _____

25. Now read the bibliography that was given to you. It will be necessary to work with materials from the library, if one is available.

    A. First, get the Occupational Outlook Handbook and find the information for your occupation. Is the description in the Handbook like the ones the computer terminal gave? _____

    B. If there are any other books listed in the bibliography, find them in the library. Look up the information that relates to the occupation you are interested in and read it.

    C. Use the Card Catalog in the library and see if there are any books in the library that deal with your occupation. Write down the titles, authors, and copyright dates of the books: _____

    _____

    _____

26. Examine the portion of the printout that you got when you typed in PREP and a two-digit number. Use a GREEN pen to underline the high school subjects that you have taken, a YELLOW pen to underline the courses you are going to take, and a RED pen to underline the courses you are not going to take or have not been offered to you.

27. Working with this same information, underline in GREEN any of the occupations, listed below the school subjects, that sound interesting to you. Sometime when there is time available on the computer, you can go back and get more information about these jobs.

28. Look at the VISIT file that was given to you on your printout. Have you ever visited a business that hires people who do the type of work you are interested in? _____ Would you like to make a visit? _____ If you answered yes on this last question, see your instructor and tell him you would like to make a visit.

29. For some occupations there are Explorer Troops that will help people get good information and training. Is there a local Explorer Troop for your occupation? _____ Have you ever considered joining an Explorer Troop? _____

30. The computer has given you some information about the programs of study where you typed in PROG and a three-digit number. Look at this part and underline the type of training program you would like to go through with a GREEN pen. Underline anything that you dislike about the programs with a RED pen.

31. Now look at the list of schools you received that have training programs for the occupation you are interested in.

    A. Use a GREEN pen to underline the schools that interest you.

    B. Use a RED pen to underline the schools that don't interest you at all.

    C. Use a GREEN pen to underline anything you like about the program at each school.

    D. Use a RED pen to underline anything you dislike about the school programs.

32. Below this information you have received more specific information about three or fewer schools that were in your printout. Examine the information that you got from the topics you chose.

    A. Underline any information that you like about the schools with a GREEN pen.

    B. Underline any information that might make you not want to go to that school in RED.

33. Turn to page 23 of your User's Handbook and underline with GREEN any other school topics that you would like to get about these or any other schools that appeared in your printout.

34. Now look at the description of the occupation that you were most interested in. (Should be the last part of your printout).

    A. Underline in RED anything that you do not like about the occupation.

    B. Did the description of the occupation tell you anything that you did not already know about the occupation? _____

    C. Are you still very interested in this occupation? _____

Now that you have gone through the computer system once, you can use it to get an idea of what specific aptitudes and abilities will affect your ability to get a job.

35. Look again at the Handbook and the way you have answered the questions. Look at questions 8 through 12. If you have marked any of them with anything but "Very Good" then circle the number of that question.

36. Look at the question 13 through 23. If you have marked any of them with NOT, circle the number of that question.

37. Go to the computer following the same steps you did the first two times.

38. Do the QUEST questionnaire again. This time, answer all the questions the same way except for those ones you have circles in your book. Answer questions 8 through 12 with VERY GOOD. And questions 13 through 23 with YES. AFTER QUESTIONS 15, 18, 20, and 23, type in "HOW MANY."

39. At the end of the questionnaire, the computer terminal will tell you how many occupations are in your list. Do NOT get your list. Type in STOP and log-out of the computer terminal. Take the printout with you.

40. Now we will compare the printout with the first one you got.

    A. How many occupations were in your list from the first time you went through the questionnaire? _____ How many occupations are in this list? _____ What is the difference in these two numbers? _____

    B. Compare the number of occupations after you typed in HOW MANY.

Question	1st printout	2nd printout	difference
15	_____	_____	_____
18	_____	_____	_____
20	_____	_____	_____
23	_____	_____	_____

You can see from the difference that the more abilities and interests you have, the more occupations are going to be open to you. This is the end of the package. You have used almost every aspect of the terminal and know how to get any information that it has in it. It is up to YOU to keep using it!

TITLE: WHAT TO BE -- THAT IS THE QUESTION

by Mike Wilson Ashland Junior High Ashland, Oregon
submitted by Vickie Gardner Hillsboro High School Hillsboro, Oregon

OBJECTIVE: To acquaint junior or senior high students or adults with a logical problem-solving technique, specifically related to career decisions.

TIME: One week or more depending upon the quantity of resource materials available

MATERIALS & FACILITIES NEEDED: Worksheets (samples on following pages) -- CIS Needle-sort deck & occupational information printouts or CIS Terminal -- Dictionary of Occupational Titles -- Occupational Outlook Handbook -- Job application forms -- Application forms for Social Security number -- other miscellaneous occupational information on hand

METHODOLOGY:

1. The worksheets are distributed to the students (perhaps one at a time).
2. The teacher may wish to check the sheets as the students complete them.
3. The teacher will need to give introductory information before several of the worksheets are attempted by the students. (e.g., data sheet, interview procedure, & Social Security number application)
4. Upon completion of the worksheets, the students may compile them into a notebook to be retained for future use.

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Name_____

TITLE:

Self Appraisal (A Beginning)
(This form may be used for re-appraisal also.)

INTRODUCTION:

Do you really know much about your job skills and knowledge, attitudes, and work habits? This activity will help you identify areas that need improvement.

OBJECTIVE:

Using the following form, you will perform a self appraisal and identify areas which are in need of improvement.

ACTIVITY:

Evaluate yourself as a worker by using the following checklist.* Place a check (X) mark in the block which most nearly describes your characteristics as a worker.

QUALITY OF WORK PRODUCED	Very poor	Poor	Slightly below standard	Acceptable quality	Very good	Exceptional quality
QUANTITY OF WORK PRODUCED	Very low	Low	Slightly under average	Slightly over average	Well over average	Extremely high
KNOWLEDGE OF JOB SKILLS	Almost none	Very limited	Somewhat lacking	Fairly good	Very good practically all phases	Exceptional knowledge all phases
ATTITUDE AND COOPERATION	Always in trouble	Frequently in trouble	Always holds back	Usually cooperates	Never holds back	Active cooperation
ATTENDANCE	Very irregular	Poor	Slightly under group average	Slightly over group average	Well over group average	Almost perfect
INITIATIVE	Very low	Requires constant supervision	Requires frequent supervision	Somewhat resourceful	Very resourceful	Extremely resourceful, self-reliant

REMARKS _____

_____

_____

Date _____ Rated by _____

*Checklist adapted from *Sourcebook of Personnel Forms*, Natl. Foremen's Institute, Inc.

Name _____

TITLE:

Job Interests

INTRODUCTION:

You can begin to understand the world of work by identifying some occupational interest areas.

OBJECTIVE:

To list at least 3 occupational interest areas.

RESOURCES:

Needle-sort or Terminal
Dictionary of Occupational Titles

ACTIVITY:

List at least 3 occupational areas in which you have an interest.
(Example: Photography)

1. _____ OCC. #_____

2. _____ OCC. #_____

3. _____ OCC. #_____

Name_____

TITLE:

Job Duties

INTRODUCTION:

You can learn more about jobs by studying the duties performed by workers.

OBJECTIVE:

To list at least 5 duties performed by a worker in a job of your choice.

RESOURCES:

Occupational Outlook Handbook
CIS Occupational Descriptions
People in the job area
Dictionary of Occupational Titles

ACTIVITY:

1. Write the name of the job here: _____OCC.#_____

2. List at least 5 duties performed by a worker in that job.

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

Name _____

TITLE:

Preparation Requirements

INTRODUCTION:

People have dreams of jobs in which they would like to work, but many times they fail to understand the training requirements necessary to perform that job. This activity will help you to understand the requirements for the job of your choice.

OBJECTIVE:

Using appropriate resources, list the specific training requirements for a job of your choice.

RESOURCES:

CIS PREP files
Dictionary of Occupational Titles
People in the job area
Occupational Outlook Handbook
Audio visuals

ACTIVITY:

Occupation Selected: _____ OCC.# _____

1. Age requirement

   _____

2. Education or training requirement

   _____

3. Special aptitudes

   _____

4. Physical requirements

   _____

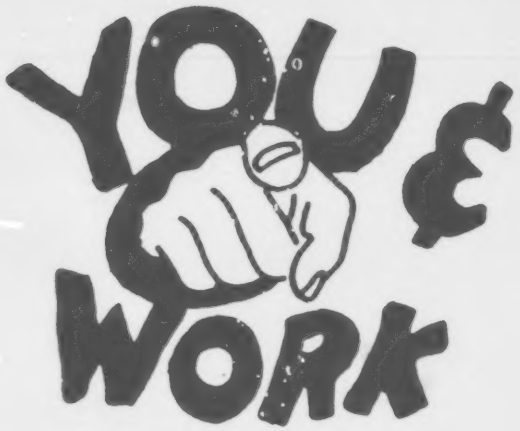
5. Places where training may be obtained

   _____

Name_____

TITLE:

Things You Like Most & Least



INTRODUCTION:

Your choice of a job should be, in part, based upon your interests. A worker interested in his job will have a better chance for success. Have you ever stopped to consider what you like to do best?

OBJECTIVE:

To write out those things you like the most and the least.

RESOURCE:

You!

ACTIVITY:

List those things which you liked the most and the least about the 3 jobs you selected.

1. Occupation Selected Occ.#	Things liked most	Things liked least
2. Occupation Selected Occ.#		
3. Occupation Selected Occ.#		

Name _____

Personal Data Sheet

ACTIVITY:

Write out a personal data sheet.

Paid or Volunteer Work Experience Dates

Education and/or Training Dates

Name _____

TITLE:

Job Application

INTRODUCTION:

Most frequently when a person interviews for a job, a job application blank is filled out. Your chances of getting a job are improved if the application is completed in a neat and accurate fashion.

OBJECTIVE:

To fill out a job application blank as neatly and clearly as possible.

DIRECTIONS:

Fill out the attached job application blank and hand it in to your instructor for evaluation.

Name _____

TITLE:

Preparing for a Job Interview

INTRODUCTION:

Before a person gets a job a personal interview is frequently necessary. A poor interview can mean no job; whereas, a good interview can mean getting a job.

OBJECTIVE:

To list the do's and don'ts for a job interview.

RESOURCE:

Interviews with parents, counselors, & employers.

EXAMPLE:

Do Arrive well groomed & neatly dressed
Arrive on time

Don't Be late for an interview
Be overconfident

ACTIVITY:

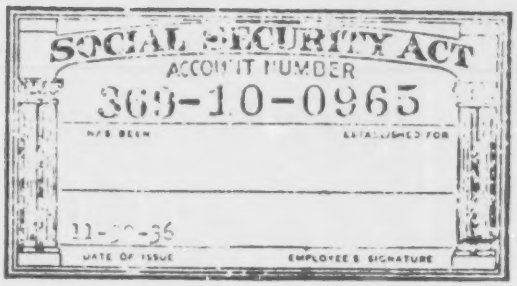
Write out the do's and don'ts of a job interview below.

Do's	Don'ts

Name _____

TITLE:

Social Security Application



INTRODUCTION:

Government regulations require all workers to secure a social security account number. Before entering the workforce, you too will have to establish an account number. It will remain with you all your life. During this activity, you will get and fill out a social security application blank.

OBJECTIVE:

1. To secure 2 social security application forms from your local social security office or post office.

2. To complete the application form neatly and accurately, as directed, and submit it to your teacher for assessment.

3. Upon approval, to send this form to your nearest social security administration district office.

PRACTICE FORM:

Use one form for practice before filling out the final form.

TITLE:

Self Appraisal (Follow-Up)

INTRODUCTION:

Earlier, you performed a self appraisal. By performing another self appraisal, you will be able to make some comparison. This activity will enable you to make these comparisons.

OBJECTIVE:

1. Using the following form, you will perform a self appraisal.
2. By looking at the original appraisal and the one just completed, you will make comparison of before/after.

Name_____

ACTIVITY:

Evaluate yourself as a worker by using the following checklist.* Place a check (X) mark in the block which most nearly describes your characteristics as a worker.

QUALITY OF WORK PRODUCED	Very poor	Poor	Slightly below standard	Acceptable quality	Very good	Exceptional quality
QUANTITY OF WORK PRODUCED	Very low	Low	Slightly under average	Slightly over average	Well over average	Extremely high
KNOWLEDGE OF JOB SKILLS	Almost none	Very limited	Somewhat lacking	Fairly good	Very good practically all phases	Exceptional knowledge all phases
ATTITUDE AND COOPERATION	Always in trouble	Frequently in trouble	Always holds back	Usually cooperates	Never holds back	Active cooperation
ATTENDANCE	Very irregular	Poor	Slightly under group average	Slightly over group average	Well over group average	Almost perfect
INITIATIVE	Very low	Requires constant supervision	Requires frequent supervision	Somewhat resourceful	Very resourceful	Extremely resourceful, self-reliant

REMARKS_____

_____

_____

Date_____ Rated by_____

*Checklist adapted from *Sourcebook of Personnel Forms*, Nat'l. Foreman's Institute, Inc.

TITLE: QUICK WITS

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: For students to investigate how general learning ability may influence the jobs which are available to them.

TIME: Enough time so each student may use the Needle-Sort 1 or 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
CIS User's Handbooks

METHODOLOGY:

1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer Question #12 - "Catching On To Things" with "fairly poor" (GFP-34).
3. Have each group or individual choose 10 interesting jobs that fall out when the question is answered in this way. Have them discuss why such a person would have to be able to catch on to things easily and be able to understand and comprehend instructions.
4. Next, have each group or individual list 5 jobs that interest them and remain on the needle. Have them explain what appeals to them about each job.
5. Have a class discussion with students explaining what they interpreted to be "an ability to catch on to things". A wide variety of responses will most likely ensue. This may be a good time to lead a class discussion concerning various aptitudes.

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TITLE: Using CIS with the Strong-Campbell Interest Inventory
by Bruce McKinlay and Donna Johnson CIS Eugene, Oregon

OBJECTIVE: To identify occupational information pertaining to the Strong-Campbell Interest Inventory

TIME: About one hour

MATERIALS & FACILITIES NEEDED:

An individual's Strong-Campbell Interest Inventory Interest Profile Form
A copy of the SCII/CIS Conversion Table (see following page)
Printed CIS Occupational Information (User's Handbook needed for computer version)

METHODOLOGY:

This activity is designed to permit people who have recently completed the Strong-Campbell Interest Inventory and who have their SCII profile form to obtain current information about the occupations. The counselor, after explaining the individual's SCII results, may wish to use the following procedures.

1. Have the person select several interesting occupations (e.g., occupations that rated high, or surprisingly low) from his or her SCII profile form.
2. Using the SCII/CIS conversion table on the following pages, have the person identify the CIS occupational codes that correspond to the SCII occupation designations.
3. The person can use the occupational code number to locate a specific occupation in CIS and then examine the occupational information (job duties, outlook, wages, etc.) in the CIS files. (Computer users will need operating instructions from the back of the CIS User's Handbook. Computer users first type their name on the computer terminal's keyboard. Then the computer instructs them to type in either QUEST or INFO; at this point the user can type in DESC and the occupation code number to get immediately into the occupational information files.)

Technical Note: The conversion table on the following pages is constructed from an analysis of the composition of Strong-Campbell Occupational Criterion Groups, some of which are specialties within CIS occupational titles.

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SCII/CIS CONVERSION TABLE

OCCUPATIONAL INFORMATION RELATED TO THE
STRONG CAMPBELL INTEREST INVENTORY (SCII)

Current occupational information is available through the Career Information System for occupations listed on Strong Campbell Interest Inventory (SCII) Report Forms. See the CIS occupational descriptions indicated below:

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations	
Accountant (f,m)	1614	Accountants & Auditors
Advertising Executive (f,m)	1162	Sales & Service Managers
	1195	Public Relations Workers
	4724	Commercial Artists & Designers
	7422	Business Services Salespeople
Agribusiness Manager (m)	4164	Farmers & Farm Managers
	1162	Sales & Service Managers
	1142	Small Business Managers
Air Force Officer (m)	1172	Military Officers
Architect (m)	2316	Architects
Army Officer (f,m)	1172	Military Officers
Art Teacher (f)	8456	Elementary & Secondary Teachers
	4724	Commercial Artists & Designers
Artist (f,m)	5982	Handcrafters
	4724	Commercial Artists & Designers
Banker (f,m)	1636	Loan Officers
	1144	Business Executives
Beautician (f)	8186	Cosmetologists
Biologist (m)	2624	Physical Scientists
	8454	University & College Teachers
Business Education Teacher (f,m)	8456	Elementary & Secondary Teachers
Buyer (f,m)	1184	Buyers & Purchasing Agents
Cartographer (m)	2364	Draftsmen
Chamber of Commerce Executive (m)	1195	Public Relations Workers
Chemist (f)	2624	Physical Scientists
Chiropractor (m)	8122	Chiropractors
College Professor (f,m)	8454	University & College Teachers
Computer Programmer (f,m)	1684	Programmers & System Analysts
Computer Sales (m)	7422	Business Services Salespeople
Credit Manager (f,m)	1636	Loan Officers
Dental Assistant (f)	8176	Dental Assistants
Dental Hygienist (f)	8174	Dental Hygienists

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations
Dentist (f,m)	8113 Dentists
Department Store Manager (m)	1162 Sales & Service Managers
Department Store Sales (f)	7454 Salespersons
	7484 Sales Clerks
Dietitian (f,m)	8116 Dietitians
Director Christian Education (f)	1136 Education Administrators
Elementary Teacher (f,m)	8456 Elementary & Secondary Teachers
Engineer (f,m)	2354 Engineers
English Teacher (f,m)	8456 Elementary & Secondary Teachers
Entertainer (f)	9866 Performing Artists
Executive Housekeeper (f)	3456 Domestic Service Workers
Farmer (m)	4164 Farmers & Farm Managers
Flight Attendant (f)	7856 Flight Attendants
Forester (m)	4124 Foresters
	4128 Forestry Technicians
Funeral Director (m)	8182 Morticians
Guidance Counselor (f,m)	8414 Counselors
Highway Patrol Officer (m)	9414 Law Enforcement Officers
Home Economics Teacher (f)	8456 Elementary & Secondary Teachers
Instrument Assembler (f)	5686 Electronics Assemblers
Interior Decorator (f,m)	2366 Decorators & Designers (Interior)
Investment Fund Manager (m)	7415 Securities Salespeople
Language Interpreter (f)	No Corresponding Occupation
Language Teacher (f)	8456 Elementary & Secondary Teachers
Lawyer (f,m)	8432 Lawyers
Librarian (f,m)	7164 Librarians
Life Insurance Agent (f,m)	7416 Insurance Salespeople
Mathematician (f,m)	2332 Mathematicians & Statisticians
Math-Science Teacher (f,m)	8456 Elementary & Secondary Teachers
Medical Technologist (f,m)	2654 Health Technicians/Technologists
Merchant Marine Officer (m)	1172 Military Officers
	11722 Naval Officers
Minister (m)	8436 Clergy
Musician (f,m)	9866 Performing Artists
Navy Officer (m)	1172 Military Officers
	11722 Naval Officers
Nurse, Licensed Practical (f,m)	8164 Licensed Practical Nurses
Nurse, Registered (f,m)	8162 Registered Nurses
Occupational Therapist (f)	8126 Health Therapists
Optometrist (f,m)	8115 Optometrists
Personnel Director (m)	1186 Personnel Managers
Pharmacist (f,m)	8124 Pharmacists
Photographer (m)	4734 Photographers
Physical Education Teacher	8456 Elementary & Secondary Teachers
Physical Scientist (m)	2624 Physical Scientists
Physical Therapist (f,m)	8126 Health Therapists
Physician (f,m)	8112 Physicians
Physicist (f)	2624 Physical Scientists
Police Officer (m)	9414 Law Enforcement Officers
Priest (m)	8436 Clergy
Psychologist (f,m)	8418 Psychologists

Strong-Campbell Occupational Criterion Groups	Corresponding CIS Occupations	
Public Administrator (m)	1138	Public Administrators
Purchasing Agent (m)	1184	Purchasing Agents & Buyers
Radiologic Technician (f)	2654	Health Technicians/Technologists
Realtor (m)	7417	Real Estate Salespeople
Recreation Leader (f,m)	8486	Recreation Leaders
	8488	Recreation Aides
	8482	Recreation Program Directors
Reporters (f,m)	2176	Writers & Editors
Sales Manager (m)	1162	Sales & Service Managers
School Superintendent (m)	1136	Education Administrators
Secretary (f)	1412	Secretaries
	1412	Stenographers
Skilled Crafts (including carpenters, electricians, tool & die makers) (m)..	4254	Carpenters
	5626	Electricians & Electrical Repairers
	5462	Tool & Die Makers
Social Science Teacher (f,m)	8456	Elementary & Secondary Teachers
	2144	Social Scientists
	21442	Sociologists
Social Worker (f,m)	8416	Caseworkers
Speech Pathologist (f,m)	8128	Speech Pathologists/Audiologists
Veterinarian (f,m)	8114	Veterinarians
Vocational Agriculture Teacher (m) ...	8454	University & College Teachers
	8456	Elementary & Secondary Teachers
YMCA Staff (f)	8486	Recreation Leaders
	8482	Recreation Program Directors

Source: "Descriptions of the Occupational Criterion Groups (Appendix C), Manual for the Strong-Campbell Interest Inventory, Stanford University Press, 1974, pp. 92-98.

Career Information System
January, 1976

TITLE:

What Shall I Do Now?

by Dick Rumble — Adams High School — Portland, Oregon
submitted by Tim Drilling — CIS — Eugene, Oregon

OBJECTIVE:

For junior and senior high school students to become aware that occupations can be closely related and that occupational worker traits may overlap. They also learn to gather data to make decisions.

TIME:

Approximately 2 days

MATERIALS & FACILITIES NEEDED:

CIS Terminal or 4-5 Needle-Sort Decks
CIS User's Handbook
Personal History (samples follow)
Occupational Outlook Handbook
Dictionary of Occupational Titles

METHODOLOGY:

1. Give each class member a copy of the personal history. (Sample history for Jeff and Michelle follow)
2. Arrange the class in small groups (5-6 people).
3. Ask each group to complete QUEST for Jeff or Michelle using the information provided. Groups will very likely discuss and negotiate answers.
4. Each group should take a complete QUEST to the terminal or needle-sort deck and obtain a list of occupations for Jeff or Michelle. They should also get an appropriate occupational description and preparation, program and school information.
5. Hold small group or classroom discussions concerning decisions Jeff or Michelle might make.
6. In another session have the groups discuss the discrepancy in QUEST responses among groups and the reasons that the occupations, programs, etc. one group selected might differ from those of another group.

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Personal History of Michelle

Describe the following situation to the group:

Michelle is eighteen years old. In a short while she will graduate from high school. Her grades are good, especially in math and science. She is an intelligent and energetic person, with an active and questioning mind. Michelle likes working with people but would like to continue to study and eventually work in an area related to science.

Michelle feels strongly about someday having a family. She has equally strong feelings about continuing her education and attending college. Her family is moderately supportive of her wish to go to college, but point out the conflict of having a family and/or a career. They question whether a college education would be "wasted" on someone who may well end up in the home. Her folks are not particularly affluent, but the money for her education can be found.

What suggestions do you have for Michelle?

Teacher's Note: The history may be rewritten to deal with almost any subject area.

Personal History of Jeff

Describe the following situation to the group:

Jeff is a nineteen year old senior. His interest in standard school curriculum is minimal, and, as a result, his grades are only average. He has a problem thinking in terms of a "career."

Jeff reads extensively for pleasure, and frequently attends movies. He loves music and is in the process of learning to play guitar.

He will soon be out of school and faced with an "unappealing" job market. He understands and accepts the need for some kind of job (food, rent, etc.), but doesn't really know where to start looking.

Jeff is very bright, and is comfortable around people. He likes to travel and loves the out of doors. Do you have any suggestions for Jeff?

B. Planning Your Future

Here individuals are helped to study their future in the context of programs of study and training and the real working world as it exists in Oregon.

RECIPES

7. Educating Yourself
8. Use of CIS at $(CE)_2$
9. Education & Training
10. This is Your Last Chance
11. You and Your High School Education
12. CIS and Academic Advising
13. Planning Your Post High School Education
14. Life-Line to Your Career
15. Now Hear This!
16. You! Performing Live!
17. Selling, Persuading and Your Future Job

Career Information System No. 1

TITLE: EDUCATING YOURSELF
by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE: An initial experience with the CIS needle-sort which introduces students to occupational opportunities open to them and the training needed for specific occupations.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort - 1 for every 5 students
1 CIS User's Handbook

METHODOLOGY:

1. Discuss possible educational decisions open to students; include training programs as well as formal schooling. Some students will be informed about requirements for some jobs and others will be unaware of any.
2. Discuss requirements for the jobs in which students are interested. (The discussion leader should have some prior indication about the most popular occupations and be prepared accordingly. CIS staff would like to suggest that the teacher investigate CIS' STATPG for the most popular occupations. The DESC file for these occupations provide information about hiring practices. The PREP file for whichever occupations are selected will provide additional information about licensing requirements and tips for entering a specific occupation.)
3. Divide the class into groups of approximately 5 students and distribute 1 needle-sort deck to each group.
4. Instruct the groups to use their User's Handbook to find the Education and Training question (question 7) in the QUEST questionnaire.
5. Ask the groups to answer question 7 with each response provided in the handbook, beginning with "No special education or training before starting the job." As they answer with each response, a number of cards will fall off the student's needle. Have the group place the job possibilities for each answer (those cards remaining on the needle) in a separate pile. After each pile is stacked, the group assembles the remaining cards to answer with the next response.
6. Have the students explore the jobs available for each aspect of education and training. Point out that any job is available to someone who will accept any amount of education. The effect of this process is cumulative--students will see that as they choose higher levels of education, their piles of job possibilities will grow.
7. Some students may wish to change their job interests or educational plans based on the new information they receive.

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TITLE: USE OF CIS AT $(CE)_2$

by Dick Sagara Community Experiences for Career Education Tigard, Oregon

OBJECTIVE: To give students information on preparation for occupations, programs of study and costs of schooling for various vocations, and to inform students of the many career options available to them.

TIME: The activities continue throughout the year.

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks
Coordinators Manuals
CIS Terminal - no time limit, if possible, on students' use

METHODOLOGY:

1. Students fill out the QUEST questionnaire early in the school year.
2. A staff member or student familiar with CIS assists the new student.
3. The printout is typed on three-part paper. Immediate counseling is given. "Why Not" could be used at this time.
4. At least 1 description is run and the student is encouraged to explore other files.
5. One copy of the printout is shared with the parents, one copy with the employers at various sites the student investigates, and one copy is retained by the school and filed for further reference.
6. CIS use is encouraged with each new occupation the student wishes to investigate.
7. Students repeat QUEST at least once again. Repeats and comparisons seem beneficial.
8. Access to the terminal is not restricted. Students are encouraged to use it as much as possible.

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TITLE: EDUCATION & TRAINING: DO THEY DETERMINE YOUR JOB??

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: For junior and senior high school students to examine how education & training influence job choices.

TIME: Enough time to allow each student to use the needle-sort -- approximately 1-2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
Worksheet (sample on following page)
CIS User's Handbooks
Occupational Information Printout

METHODOLOGY:

1. Students may work individually or in small groups.
2. Using the needle-sort deck, students will answer Question #7 in the User's Handbook - "Education and Training" with "4 year college degree or equivalent." Have the students list 3 interesting occupations that fall off the needle.
3. Students should then answer Question #7 with "up to 2 or 3 years of special training." Have the students list 5 interesting jobs that fall off the needle when the question is answered in this way.
4. Students answer Question #7 with "high school graduation or G.E.D. and a short training period." Have them list 5 interesting jobs that fall off the needle when they answer the question in this manner.
5. Students answer Question #7 with "no special education or training before starting the job." List 5 interesting jobs that fall off the needle.
6. Students should list 3 interesting jobs that remain on their needle.
7. Of the jobs they have listed, have the students choose 1 job that interests them most.
8. Have them write down how much education and training it requires.
9. Class discussion may ensue or individual counseling may be in order.

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NEEDLE-SORT/CAREER AWARENESS and EXPLORATION Name_____

EDUCATION AND TRAINING

1. List 3 interesting jobs that fall off the needle when you limit yourself to 4 years of college or special training: (FOUR-24)

   a._____ b._____ c._____

2. List 5 interesting jobs that fall off the needle when you limit yourself to 2 years of training: (TWO-23)

   a._____ c._____

   b._____ d._____

   e._____

3. List 5 interesting jobs that fall off the needle when you limit yourself to high school graduation: (HS-21)

   a._____ c._____

   b._____ d._____

   e._____

4. List 5 interesting jobs that fall from the needle when you limit yourself to no training:

   a._____ c._____

   b._____ d._____

   e._____

5. List 3 interesting jobs that remain on your needle.

   a._____ b._____ c._____

6. Circle the job listed anywhere on this page that interests you most.

7. How much education does it require?

TITLE: THIS IS YOUR LAST CHANCE
by Vickie Gardner Hillsboro Senior High Hillsboro, Oregon

OBJECTIVE: To expose high school seniors to CIS and encourage them to utilize it one last time before graduation.

TIME: 15-20 minutes for presentation plus time on computer terminal or with Occupational Needle-Sort for students wishing to use it.

MATERIALS & FACILITIES NEEDED:

1 CIS User's Handbook for each senior
1 copy of teacher instructions for each person directing the activity (on following page)
CIS Terminal or Needle-Sort, including occupational information printouts

METHODOLOGY:

1. Teachers read the first paragraph to the audience (on following page).
2. Distribute handbooks to each person present.
3. Read directions contained in paragraph 2, allowing time for people to complete the given task.
4. Sum up the session with paragraphs 3 & 4. Information concerning the procedures for using the computer terminal or needle-sort (e.g., room where they are located, way in which to schedule time, etc.) should also be given at this time.

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TEACHERS: Please read the following material to your students. If any questions arise or if you need additional handbooks, please see me. Thank you for your cooperation.

CIS Coordinator

SENIORS - "This is Your Last Chance"

Paragraph 1

As graduation approaches, many of you are probably still contemplating the answer to the question that has haunted you for the past four years, "What am I going to do after high school? Get a job? Go to college? Enter the military? Attend a vocational/technical school? Or perhaps you know what you want to do, but need more detailed information about the occupation, the program of study or the school. You have nine weeks to take advantage of one of the most valuable sources of career information ever created, CIS (Career Information System).

Paragraph 2

To aide you in your plans for after high school, we have furnished, free of charge, your own private User's Handbook. Please look through the list of occupations for which there are descriptions beginning on page 8. (Teachers please allow students to look through their handbooks at this time.) Programs of education and training are listed in alphabetical order beginning on page 14. Take time now to look at these. And finally, on page 19, you will see a list of all the two and four year colleges and the vocational schools in Oregon. Page 23 lists the type of information available for each school; check out this information now.

Paragraph 3

For those who have no idea what occupation you are interested in, the QUEST on page 2 will be helpful. The QUEST is not a test, but rather a self-report inventory to help students select several occupations for consideration. It does not tell you "what you are supposed to be." The accuracy of the QUEST is determined solely on how accurately you report your own abilities, interests and aptitudes. That depends, of course, to a great degree on how well you know yourself. If, in filling out the QUEST, you are unsure of your abilities, it would be a good idea to see your counselor. Ability and interest test scores and other valuable information may be available and could help you to know more about yourself.

Paragraph 4

There are many other valuable sources of career information -- counseling centers, vocational schools, occupational files, the Occupational Outlook Handbook, the Dictionary of Occupational Titles, and the Encyclopedia of Careers plus all the college catalogues. They could prove very helpful to you. We encourage all seniors to take advantage of available information during the next nine weeks. And, if you need help, see your counselor.

Career Information System **No.** 11

TITLE: YOU AND YOUR HIGH SCHOOL EDUCATION

by Sue Taylor Highland Park Intermediate School Portland, Oregon

OBJECTIVE: To have 9th grade students relate courses of study and school activities to career decisions.

TIME: 1 week (days coming at different times during the school year)

MATERIALS & FACILITIES NEEDED:

CIS Terminal
Handout: Planning Sheet (sample on following page)
CIS User's Handbook

METHODOLOGY:

1. During the time when the high school counselor speaks to the junior high students, have an explanation of the occupation list in the User's Handbook.
2. At the same meeting, the students are asked to review the senior high school handbooks.
3. At a later appointment, the student and his/her counselor will discuss career choices and the use of the CIS terminal.
4. Then before seeing the counselor with final high school plans, each student uses the terminal, gets the high school subjects in the PREP file, and obtains a printout on the high school cluster subjects they would like to pursue.
5. Students would take their printout to their meeting with the counselor and from there plan a three/four-year high school program which corresponds to their tentative career choices.

NOTE: Sample planning sheet on the following page.

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My 4-year forecast: NAME _____

Career Cluster Interest: _____

Specific Job or Profession: _____

or _____

Educational level goal: _____
(high school, college, Jr. college, etc.)

Courses planned:

		COMMENTS
9th		
ENGLISH		
WORLD GEOGRAPHY		
MATH-ALG.-GEOM.		
P.E. & HEALTH		
ALT.		
10th		
ENGLISH		
BIOLOGY		
P.E. & HEALTH		
ALT.		
11th		
ENGLISH (MINI)		
SOC. STUDIES (MINI)		
P.E. & HEALTH		
ALT.		
12th		
ENGLISH (MINI)		
SOC. STUDIES (MINI)		
ALT.		

TITLE: CIS and Academic Advising
by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: To assist entering college students in determining what major they want to pursue.

TIME: Continuous activity

MATERIALS & FACILITIES NEEDED:

CIS Computer Terminal and/or Needle-Sort and CIS User's Handbooks (if Needle-Sort is used, accompanying printouts of occupational, program and school information can be unstapled and put in a loose-leaf notebook so that students may make copies of information they wish to take to their advisors).

METHODOLOGY:

Entering freshmen or undergraduates with undeclared majors, unsure of what program or major they want to pursue, can be referred to CIS -- either Needle-Sort or computerized version. Students can explore in more detail programs of study (PROG) in which they may have some interest.

1. Have students pick a Program file of interest, either from the alphabetical list in the User's Handbook or from the following numerical list that organizes programs in clusters of related types of programs (see following page). If students are unsure about whether or not their school offers a particular program have them look up their school's code number in the User's Handbook and ask for appropriate school topics that describe programs' availability (topics 6-63).
2. Give the students enough time to read through the Program files they select.* By accessing the narrative descriptions in the Program file for one or more programs of study that interest them, students may gain a better insight into the programs and be better able to select classes and eventually to declare a major. Students also should be encouraged to use other information files in CIS (such as the occupational descriptions and QUEST) if they desire.
3. After using CIS, students may take their information printout to a counselor or advisor and confer about program and course selection.

*Remind students that the narrative program descriptions (including sample course titles, etc.) are compiled from sources like accrediting agencies to give a general picture of what being a major in that field is like in any school. School-specific information is contained in the list of schools that follows the program description.

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CIS PROGRAMS OF STUDY AND TRAINING

Agriculture & Natural Resources

061 Agriculture
063 Food Science & Technology
065 Horticulture & Landscaping
067 Fisheries & Wildlife Sciences (including Commercial Fishing)
068 Forestry

Architecture & Environmental Design

081 Architecture & Environmental Science

Area Studies

111 Area Studies

Biological Sciences

131 Biology

Business & Management

143 Banking & Finance
144 International Business
145 Business Management & Administration (incl. Supervision & Mid-Management)
146 Marketing
147 Real Estate Training
148 Sales Training (include Merchandising)
151 Income Tax Auditing
152 Shorthand Reporting
153 Furniture Upholstery Training
154 Business Machine Operation
157 Accounting
158 Secretarial Studies
161 Hotel & Motel Management Programs
163 Commercial Driving Training
165 Food Service
167 Barber Training
168 Cosmetology & Beautician Training
169 Funeral Service
171 Floral Design
174 Animal Grooming & Training
175 Leatherworking

Communications

191 Communications
193 Journalism
196 Radio & Television

Computer & Information Sciences

211 Data Processing Programs (includes operators & programmers)
214 Key Punch

Education

231 Education Administration
232 Health Education
234 Elementary Education
235 Physical Education
236 Secondary Education
237 Special Education
238 Counseling
239 Education Aide Programs

Engineering

251 Engineering
253 Engineering Technology

Mechanical Technologies

274 Flight Training
275 Aviation Maintenance (including Air Frame)
277 Drafting
278 Auto & Diesel Mechanics
279 Small Engine Repair
281 Body & Fender Repair
283 Welding
287 Industrial Mechanics
288 Construction Industry Programs
289 Business Machine Repair
291 Heavy Equipment Operation & Repair
292 Electronics
293 Radio - TV Repair
295 Machine Technologies
297 Refrigeration & Air Conditioning Mechanic Training

Fine & Applied Arts

311 Art
313 Interior Design
314 Music
315 Apparel Design
316 Theatre & Drama
317 Photography
318 Printing/Graphics
319 Modeling & Finishing

Foreign Languages

331 Foreign Languages

Health

351 Medical Records Administration
353 Nursing
357 Dentistry
358 Dental Assisting
361 Dental Hygiene
362 Dental Technology
363 Medicine (MD)

Health (cont.)

366 Medical Assisting
367 Occupational Therapy
368 Massage
369 Optometry
372 Pharmacy
373 Chiropractic Training
374 Physical Therapy
376 Public Health
378 Veterinary Medicine
381 Environmental & Sanitation Technology
383 Health Technologies - Medical Laboratory
385 Health Technologies - Radiological (X-ray)
387 Health - Other Technologies

Home Economics

411 Home Economics

Law

421 Law

Letters

441 English & Literature
443 Speech
445 Philosophy
446 Religious Studies

Library Science

461 Library Science

Mathematics

481 Mathematics

Military Science

511 ROTC

Physical Science

521 Physical Science
522 Meteorology
523 Physics
524 Chemistry
526 Geology
528 Oceanography

Psychology

541 Psychology

Public Affairs & Services

562 Public Administration
564 Recreation & Park Management
565 Social Service
567 Law Enforcement
568 Corrections
569 Fire Control

Social Sciences

581 Social Science
582 Anthropology
583 Economics
584 History
585 Geography
586 Political Science
587 Sociology
588 Ethnic Studies
589 Urban Studies

Interdisciplinary Studies

612 General Studies - Social Science
613 General Studies - Humanities
614 General Studies - Science

Other Programs

631 Apprenticeship
633 Adult Basic Education
634 Continuing Education Opportunities
635 Independent Study

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TITLE: Planning Your Post High School Education
by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE: Students identify tentative post high school educational plans and match them with specific postsecondary school programs offered in the state.

TIME: Enough time so each student may use a variety of CIS information files. 1 or 2 class periods.

MATERIALS & FACILITIES NEEDED:

CIS terminal or manual Needle-Sort and CIS printouts for occupational, program and school information.
A worksheet for students listing some of the questions suggested below (optional).
Any additional resource information about schools and training that you have available to you at your school.

METHODOLOGY:

A teacher or guidance counselor may work with individuals and small groups facilitating student identification of postsecondary educational plans.

As preliminary plans are identified, instruction on the use of the Career Information System (either computer terminal or manual Needle-Sort*) should be given. QUEST may be taken or retaken, but PREP, PROG and SCH files will be particularly useful for this exercise.

Students should try to answer the following questions about their plans by using the CIS information files:

1. Is there more than one kind of program available that will be meeting my needs? What are the advantages of each?
2. Where could I take the program that interests me?
3. How long will it take?
4. What are the costs?
5. What kinds of financial aid are offered by the school?
6. What should I do now to become better prepared?

(Additional resources, such as the Oregon State System Fact Sheet, It's Your Decision, financial aid application forms, SAT and ACT application information, etc., may be provided.)

Very important to the value of the activity is an opportunity to discuss the results with a counselor or a teacher acting in support of the exercise.

*Using the computer terminal facilitates students' ability to compare up to three schools at once on any information topic the student selects.

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TITLE: Life-Line to Your Career
by Leslie Haines CIS Eugene, Oregon

OBJECTIVE: 1) To help students identify their past work experiences and then think of them in terms of their preferred lifestyle and values; 2) to facilitate appreciation for people's differing experiences, values, lifestyles; and 3) to encourage students to make specific plans about work based on their understanding of their personal values.

TIME: Two class periods (one week apart to allow time for gathering CIS information)

MATERIALS & FACILITIES NEEDED:

Large newsprint tablet
Felt tip pens of varying colors
Masking tape
CIS computer terminal and User's Handbooks

METHODOLOGY:

This activity may be used at the high school or community college levels.

Before the first session --

1. Before beginning students on this activity, the leader should read the accompanying preparation notes about values clarification.
2. In a career-oriented class or workshop, each student will be helped to construct his or her own life-line using a sheet of newsprint and a felt tip pen.

First session --

1. Spend some time (about 15 minutes) talking about values and have the class list a few (e.g., independence, security, comfort, service, adventure, etc.). You should find the Group Leader Preparation Notes helpful in leading this discussion. Have students consider the values you all talk about as they begin to prepare their life-lines.
2. Explain to the students that they will draw a graphic representation indicating all of the kinds of work or jobs they have held in the past, their work activities in the present and their future plans. Above and below the line they can indicate their positive and negative feelings about moments in their work experiences (see the sample life-line at the end of this exercise for ideas).
3. Tell students to be as creative as they wish with the format of the life-line (you may wish to provide magazines and ask students to illustrate their experiences with pictures or they may wish to use other creative formats). In drawing the life-line, however, students should indicate a specific beginning and ending date (you may specify that students begin 10 years earlier in their life and end the life-line 10 years in the future or you may choose specific beginning and ending dates depending on the age of the group). Having students draw their life-lines into the future encourages them to think in terms of where and why they will be working later in life.
4. At the end of class allow about 10 minutes to explain the activity to be completed before the class meets again to work on this exercise (about 1 week later). In the week between classes, ask students to use the Career Information System

(continued)

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to gather some occupational information. (You will have to have made prior arrangements for your class to use the computer terminal and CIS during the week). CIS will provide the students with information about specific occupations they may be thinking of as a result of working with their life-line or may answer questions students may have about further education or preparation. If students are only beginning to think about their future careers, they can be encouraged to use CIS' QUEST and come back to class with a list of occupations that interest them and a few occupational descriptions. Ask students to bring to class next time their CIS computer printouts (at least 1 or 2 occupational descriptions) and their life-lines for class discussion.

Second session --

1. After students have prepared their life-lines and have explored CIS to obtain some occupational information that interests them, have each individual spend about 10 minutes looking over his or her life-line and write at the bottom some of the values the person regards as important or values that seem to be evident from past experience.
2. Then break the class up into small groups (3 or 4 people) and have the groups discuss how personal values relate to plans for future work. If they care to, individuals may explain the values they listed on their life-line and why these values are important to them. Group members may wish to suggest some possible careers that could relate to the individual's values.

NOTE: A couple of examples of how two students' life-lines turned out are provided on subsequent pages. Also included is a Group Leader's Preparation Sheet for background information on presenting values clarification information.

GROUP LEADER'S PREPARATION SHEET

The group's leader may want to begin the life-line activity by discussing briefly what values are: for example, "values are the things that are important to us. The lifestyle we choose is directly related to our values. Values relate to those things we must do to feel good about ourselves."

In making career decisions it is important that people begin to get a clearer idea of what their values and preferred lifestyle may be. For instance, a student may begin to ask, how do I relate to things -- as a leader, as a creator? Do I prize physical comfort or adventure? Do I enjoy a structured environment or do I prefer to innovate? How important is economic security to me? Do I like to work independently of other people or on a team? Do I like to be in charge of others or do I like to be supervised? Do I want to work with ideas and concepts or would I rather not be involved in these activities?

Values vary widely from person to person. It is important that the facilitator be accepting of values that may be the same or that may differ widely within the group. In this way one can avoid giving the impression that some values are "right" and some are "wrong."

Usually we have several values that motivate us and some of these are more important than others. Two people may have very similar values and yet rank them differently. During the discussion of values, the facilitator may gather from the group a list of possible values one might identify. Such a list might include words like: service, comfort, independence, security, activity, sacrifice, etc.

The choices we make and the actions we take most often are revealing of our personal values. The life-line activity is not a "tell all" session. Participants should be encouraged to choose those events they would be willing to talk about and share with the group.

The life-line exercise enables most students to talk about their values readily, and to help other class members identify what it was about a certain activity or period of time that satisfied them. Inherent in the exercise is the opportunity to project freely into the future, discussing future work expectations and what that event will mean in the life of the individual.

Career Information System
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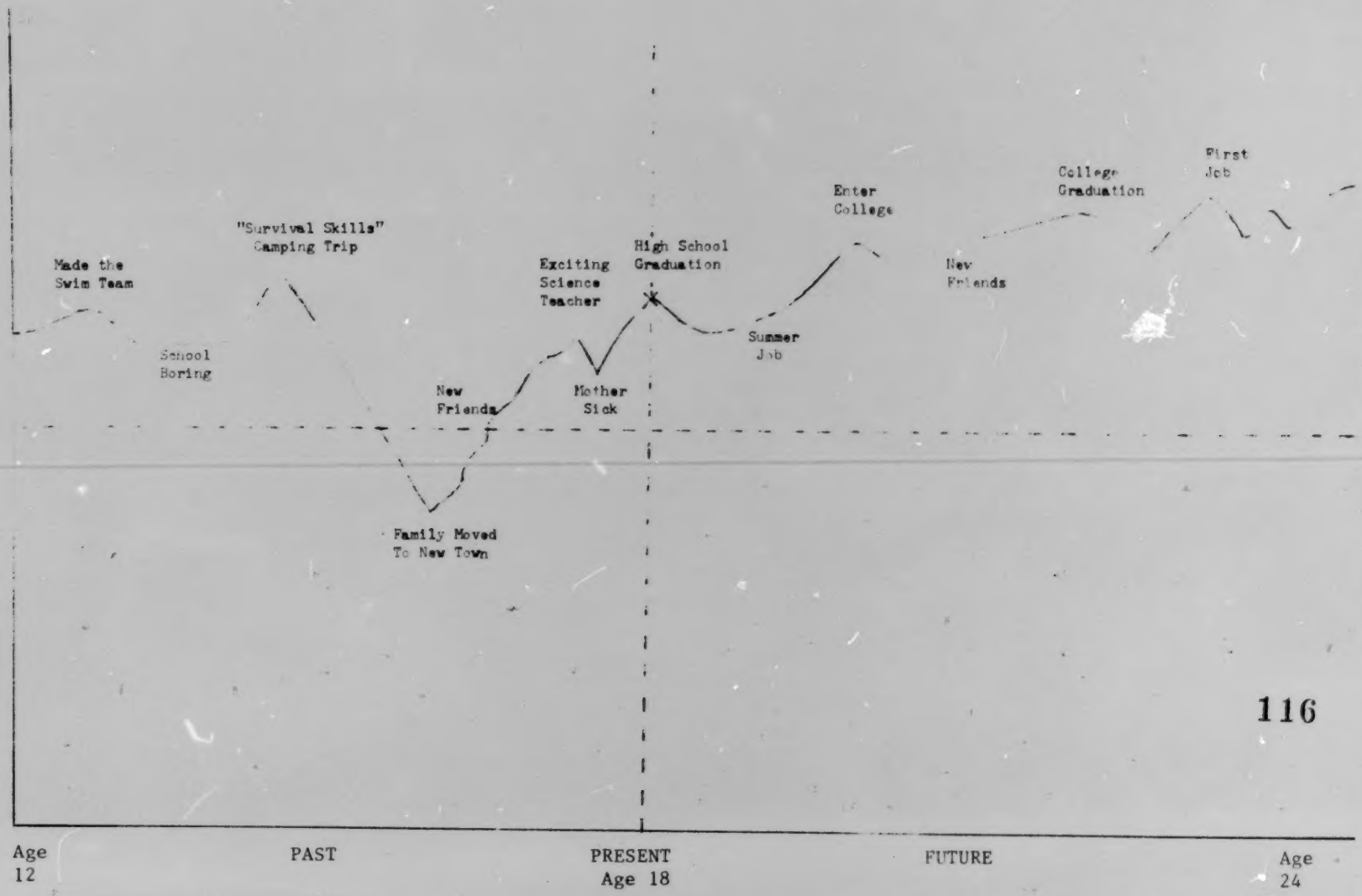
Life-Line by Travis (Age 18)



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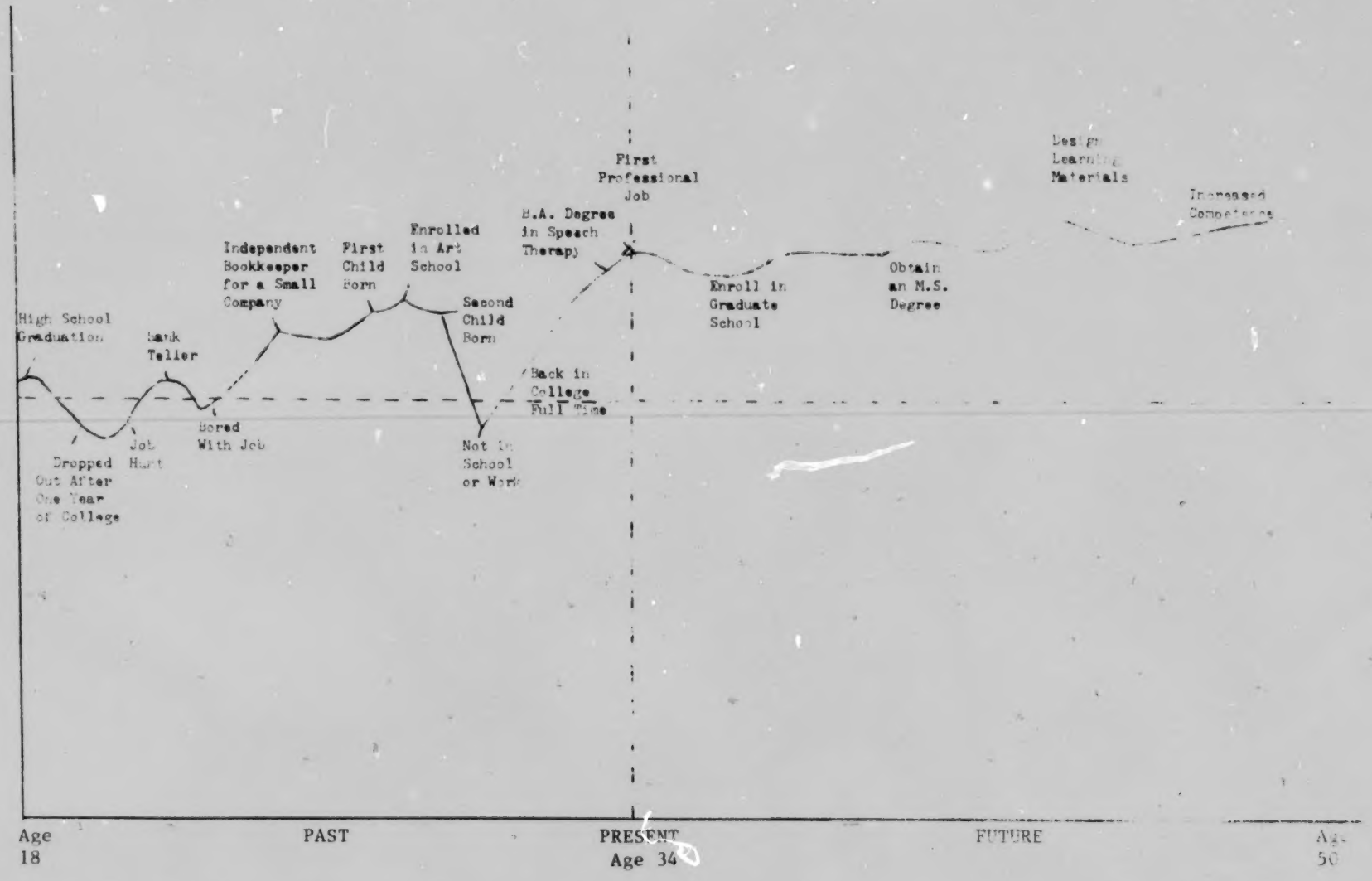
Some Values that Travis Seems to Hold:
Physical activity; importance of family & friends; security; achievement

Life-Line by Margaret (Age 34)



Some Values that Margaret Seems to Hold:
Achievement; independence; being of service

TITLE: Now Hear This!
by Leslie Haines CIS Eugene, Oregon

OBJECTIVE: To acquaint community college or college students with the kinds of questions typically asked in a job interview.

TIME: 1 or 2 class periods or longer, depending on the size of the group.

MATERIALS & FACILITIES NEEDED:

"Now Hear This!" worksheets for each student
CIS User's Handbooks (either computer or Needle-Sort version) for each student
CIS Terminal or CIS Needle-Sort (deck and occupational information printout)

METHODOLOGY:

1. Have students either fill out the QUEST material in the CIS User's Handbook or simply peruse the occupations listed in the Handbook to identify occupations that interest them. (If QUEST is used, allow additional time for students to get a list of occupations -- either with the computer or the needle-sort. Have students choose a particular job to relate their interview material to during this exercise. The CIS information should give them the material they need to find out some useful things about the job for which they are applying.
2. Each student then is given a worksheet for this activity (see accompanying page) and is given time to review it, writing down answers to questions she or he is unsure of. Students should prepare their answers considering the job for which they are planning to "mock interview."
3. In subsequent class, ideas and information can be shared among group members about appropriate responses to questions.

(A good follow-up activity to give the class an opportunity to practice an interview is the recipe "You Performing Live!" - #16.)

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Now Hear This!

Frank Endicott surveyed 92 companies and found that the following questions were the ones most often asked in employment interviews.*

1. What are your special abilities?
2. What jobs have you enjoyed the most?
3. What extracurricular activities have you been involved in?
4. What have you learned from some of the jobs you've held?
5. How do you spend your spare time?
6. Do you prefer working with others or yourself?
7. What courses did you like best in school? Least? Why?
8. Why did you choose this particular field of work?
9. What do you know about our company?
10. What qualifications do you have that make you feel you will be a success in your field?
11. Do you feel you received good general training?
12. What type of position are you interested in?
13. What school activities have you participated in? Why? Which did you enjoy most?
14. What are your future vocational plans?
15. How much money do you hope to be earning five years from now?
16. Have you ever been involved in teaching someone something?
17. Do you do volunteer work now in the community?
18. Do you have plans for further training?
19. What job in our firm do you want to work toward?
20. Have you had any serious illness or injury?
21. Are you willing to go where the company sends you?
22. What are your special abilities?
23. Have you ever changed your major field of study while you were in college? Why?
24. What have you done that shows initiative and willingness to work?
25. What do you think would determine your progress in our company?

*Interview questions taken from "Making the Most of your Job Interview," a brochure produced by the New York Life Insurance Company.

There are probably some, maybe most, questions that you already know how you would answer during an interview. If there are some that you are not sure about how you would respond, take some time to write down what you think you would say if you were asked those questions. Discuss in class possible answers to problem questions that will show you in a good light to a potential employer.

Career Information System
February 1976

TITLE: You! Performing Live!
by Leslie Haines CIS Eugene, Oregon

OBJECTIVE: To familiarize community college and college students with principles of job interviewing and to provide practice sessions.

TIME: Enough time to allow each student to participate in the interview situation as an interviewee.

MATERIALS & FACILITIES NEEDED:

CIS occupational printouts
"You! Performing Live!" worksheets for all students
Video-tape equipment, if available

METHODOLOGY:

1. Students should be prepared for this activity by first exploring interesting occupations or by identifying a specific occupation for which to interview by using CIS materials. Steps 1 and 2 of recipe "Now Hear This!" give directions on how students may choose an occupation and do appropriate preparation for the interview. Students who have completed that recipe may skip this step and go directly to Step 2 (below).
2. Students are acquainted with interviewing principles through use of the accompanying worksheet "You! Performing Live!". Each student should have a copy of the worksheet and time should be allowed for questions about the principles of interviewing or other interview-related concerns.
3. Students then may take turns (either in front of the class or in small groups) role playing an interview situation. If video-tape equipment is available, it can provide valuable feedback to each interviewee about her or his effectiveness in an interview situation. Have one person in each group act as the interviewer and then change roles. A good resource for the person in the interviewer role is the list of questions on the worksheet for the recipe "Now Hear This!" - #15.

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You! Performing Live! (in a job interview...)

DO	DON'T
+ Dress conservatively and appropriately for the job setting.	- Arrive late for your interview appointment.
+ Be neatly groomed.	- Chew gum or smoke during the interview.
+ Smile and be friendly.	- Slouch in your chair.
+ Know the exact interview time and place.	- Avoid looking at the interviewer.
+ Have a copy of whatever written material you sent in (your resume, letters of recommendation, application form).	- Mumble when you answer a question.
+ Look your interviewer in the eye.	- Fidget with your hands, tap your feet.
+ Speak up clearly.	- Use brief "yes" or "no" responses when you could say more.
+ Be sure you understand a question before you answer it.	- Rush through your answers to questions.
+ Be sure to give enough relevant information when answering a question.	- Overpower the interviewer with too much information about yourself.
+ Ask when decisions will be made and how you will learn of the decision.	- Forget to offer your hand to greet a male interviewer. (If you have a female interviewer wait for her to extend her hand.)
+ Prepare questions you might want to ask the interviewer.	
+ Thank your interviewer.	

Career Information System
February 1976

TITLE: Selling, Persuading and Your Future Job

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: To inform students on how selling and persuading affect their job possibilities.

TIME: 1 class period

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
CIS User's Handbooks

METHODOLOGY:

1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer question 22 - "Selling, Persuading" with ("NOT"-44).
3. Have each group or individual choose 5 interesting jobs that fall out and are eliminated when the question is answered in this way.
4. Have the students discuss reasons why they think that selling and persuading are important abilities in each of the occupations.
5. Then have each group or individual choose 5 interesting jobs that have remained on the needle. Have them explain what appeals to them about these jobs.
6. The class then may discuss the way selling and persuading relates to careers (e.g., selling oneself during interviews).

NOTE: This technique may be used with any interest question (questions 13-23).

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LANGUAGE ARTS

The following collection of CIS* instructional materials or "recipes" has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs.

This Language Arts section stresses communicative skills, both written and spoken. It encompasses critical thought, information gathering, reading, and vocabulary skills.

RECIPES

18. Panel of Experts
19. Pre-Work Observation Activity
20. Ready-Begin
21. To Tell the Truth
22. Treasure Hunt
23. Is It All It's Cracked Up to Be?
24. Stump the Students
25. Dear Diary
26. Data, People, Things
27. Research Paper
28. Understanding Interests
29. Role of Work
30. Vocabulary and the World of Work

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE:

PANEL OF EXPERTS
by Phil Palmer Highland Park Intermediate School Beaverton, Oregon

OBJECTIVE:

To help 7th & 8th grade students to become aware of information that is available in the CIS files and to be able to write questions which will access this information.

TIME:

1 class period, preferably following use of the activity titled "Stump the Student" (see Recipe #24)

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Occupational Information Printouts
CIS User's Handbooks (1 per 5 students)

METHODOLOGY:

1. Students are given User's Handbooks.
2. Five students are selected to be the panel.
3. Any student may question any panel member.
4. The questioned panel member must answer if the question can be answered by CIS. The answer would be the file and occupational number or the reply that it is unanswerable.
5. The answer is retrieved from the terminal or occupational description printouts and supplied to the student asking the question.
6. The answer may be contested.
7. If the panel member is correct, he scores 100 points. If he is incorrect, he is replaced by the questioner.
8. Several questions can be processed at one time.
9. Individual scores are totaled at the end of the time period.

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TITLE: PRE-WORK OBSERVATION ACTIVITY

by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE:

For junior and senior high school students to identify interests and aptitudes and match them with available occupations.

TIME:

Approximately 2 weeks

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks

1 CIS Needle-Sort for each 5-6 students (Fewer Needle-Sorts can be used, but the time needed for completion will be longer.)

METHODOLOGY:

1. Instruct the students in the use of CIS Needle-Sort.
2. See that most students complete QUEST and select a workable list of occupations which interest them.
3. The teacher should assist the students in arranging a site observation for one of the occupations they selected.
4. Students should conduct the work site visit individually or in small groups.
5. Have students make a list of questions they wish answered prior to the visit. (See page 25 in CIS User's Handbook)
6. If there are particular tasks they would like to observe, they should also list them.
7. Ask students to do one or two of the following activities, using their visit as the topic:
   a. write a report
   b. give an oral report
   c. hold a general classroom discussion

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TITLE:

READY - BEGIN

by Sam Ignazzitto and Lent School Portland, Oregon
Dale Langley Binnsmead School
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE:

To give students the opportunity to discover the occupation of teaching P.E. and be able to list education requirements, advantages of the occupation, duties of the occupation, and complete a student-designed interview.

TIME:

3 - 4 days

MATERIALS & FACILITIES NEEDED:

Occupational Outlook Handbook
CIS Occupational Information Printouts
Tape Recorder

METHODOLOGY:

1. Class discussion of teaching P.E. as a career.
2. Divide the class into groups of 2-3, if you wish.
3. Considering the stated objective, students should design a set of interview questions.
4. Visit a P.E. teacher and conduct the planned interview.
5. Record the interview on tape.
6. Compare findings of interview with resource materials and write a comparison paper.
7. Present findings to the class.

NOTE: Many occupations could be dealt with using this format.

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TITLE:

TO TELL THE TRUTH

by Tom Stennick Lent School Portland, Oregon
submitted by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE:

Given a game situation, junior high students will attempt to tell which student in a panel is telling the truth about a particular occupation.

TIME:

1-2 class periods

MATERIALS & FACILITIES NEEDED:

Occupational Information Printouts
Copies of suggested questions for the panels (sample on following page)

METHODOLOGY:

1. Divide the class into groups of 3-4.
2. Each group selects an occupation and researches it for all possible information.
3. The groups each write an affidavit to be read to the class.
4. The class questions each group or panel, one at a time. Rules are according to television's "To Tell The Truth". One student, when questioned will give factual information, the other panel members will give less factual information.
5. At the end of a given amount of questioning, the panel member having given factual information will identify him/herself and discussion concerning the career and the questions/answers will follow.

NOTE: Sample questions on following page.

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Suggested Questions for the Panel

a. How much money do people in this particular occupation earn?

b. Is the work done inside or outdoors?

c. Does the person working in this occupation work with data, people, things or a combination?

d. Does a person need a college education to do this work?

e. Does a person need a technical education to do this work?

f. Does a person need a high school education to do this work?

g. Are there many opportunities for employment in this occupation?

h. Are there many opportunities for advancement in this occupation?

TITLE: TREASURE HUNT

by Phil Palmer Highland Park Intermediate School Beaverton, Oregon

OBJECTIVE:

For 7th and 8th grade students to gain ability in using the User's Handbook to access information in all CIS files.

TIME:

1 class period

MATERIALS & FACILITIES NEEDED:

CIS User's Handbook
CIS Terminal
Question lists

METHODOLOGY:

1. Student teams of 3 to 5 are formed. Each group is given a list of questions. (Sample questions on next page.)
2. Each team identifies information file and corresponding code number that will provide the answers for 5 questions, then gives the teacher this information.
3. A team member types the answer to one question on the terminal. Teams must use a different person to type in the file and number for each answer.
4. Corrections are made, if needed, and the correct files and numbers are given to the teacher.
5. The teacher assigns points for each question. (100 points for each correct answer, 50 points for each corrected answer.)
6. At the end of the period, the team with the highest score is the winner.
7. The questions could be re-written and designed to meet the needs of a specific subject area.

NOTE: Questions and answers on following pages

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LIST OF "INFO" FILE QUESTIONS

1. What is the per hour salary of a journeyman Plasterer?
2. What duties must a Sawmill Greenchainman perform?
3. What are the employment prospects of a Freelance Writer?
4. Who sponsors Explorer Posts for a Systems Analyst?
5. What high school courses should you take to be a Dental Hygienist?
6. What two books could I find information in about a Sanitarian?
7. Who sponsors an Explorer Post for Police Training?
8. What high school courses are needed to prepare for an Auto Mechanic?
9. What is the work setting for Child Care Workers?
10. How much money does a College Teacher earn in nine months?
11. What is the best way to prepare to become a Musician?
12. How long is the apprenticeship to become a Meat Cutter?
13. What schools have a program in Art?
14. What two cities have schools for Dog Grooming?
15. What courses would be helpful in preparing for a career as a Flight Attendant?
16. Does Oregon State have a program related to Meteorology?
17. What g.p.a. is required for admission to the University of Oregon?
18. How many schools in Oregon offer modeling courses?
19. What content is covered in photography programs within the State of Oregon?
20. What courses are offered at Astoria Flight Service?

CIS: 8/76

ANSWERS TO "INFO" FILE QUESTIONS

1. DESC 4244 ($9.30)
2. DESC 4536 (Pull, grade and stack lumber)
3. DESC 2174 (Few writers can totally support themselves, good for the very talented)
4. XPLOR 1684 (Far West Savings, IBM)
5. PREP 81 (Algebra, biology, chemistry, composition, health education, reading, speech)
6. BIB 2674 (Occupational Outlook Handbook, Dictionary of Occupational Titles)
7. XPLOR 9414 (David Douglas Dad's Club, Clackamas County Sheriffs Office, Lake Oswego Police Department, Portland Police Department, Clark County Sheriffs Office, Multnomah County Sheriffs Office, Canby Police Department)
8. PREP 31 (Metals, physics, welding, algebra, drafting, electricity, geometry, mechanics)
9. DESC 8459 (Indoors with 30 or more pre-schoolers)
10. DESC 8454 (Average wage - $13,000; average maximum wage - $18,000)
11. PREP 9866 (Formal training at established institutions)
12. DESC 4326 (three years)
13. PROG 311 (Most four year schools, several community colleges and several private schools)
14. PROG 172 (Portland, Eugene)
15. PREP 78 (Arithmetic and Food Service Cluster)
16. SCH 21219 (yes)
17. SCH 21812 (2.5 g.p.a.)
18. PROG 319 (5)
19. PROG 317 (Skills in camera usage and maintenance, lighting and exposure, film development)
20. SCH 49102 (Flight training)

TITLE: IS IT ALL IT'S CRACKED UP TO BE???
by Dick Sagara Community Experiences for Career Education Tigard, Oregon

OBJECTIVE: To give junior and senior high school students an opportunity to examine specific occupations and make a comparison between a job advertisement and the information supplied by individuals working in the occupation.

TIME: May take several weeks to compile all the information.

MATERIALS & FACILITIES NEEDED:

Newspaper advertisements
CIS Terminal and/or Needle-Sort
Occupational Information Printout

METHODOLOGY:

1. Announce the first day of the lesson that each person should look through the newspaper and select at least 1 job advertisement which interests them.
2. Assist the group in forming small 2-3 people units. Have each small group select 1-2 advertisements which sound most interesting.
3. Have the students obtain a description of the selected occupations from the CIS terminal or Occupational Information Printout.
4. Have students consider if the occupation fits their expectations, based on the newspaper information.
5. Ask the students to investigate the CIS "BIB" file and do some additional research on the selected occupations. (*optional)
6. Have the students use VISIT or XPLOR files to locate a place to talk to someone working in a specific occupation.
7. Make the necessary arrangements for a visit.
8. During the visit:
   a. have students share the advertisement
   b. have students share their CIS information
   c. have students share any other information they have obtained
   d. have the students be especially concerned with how realistic the advertisement was
9. If possible, it would be interesting to have the firm advertising for a job applicant go through a simulated interview with some students. The students and the firm could share perceptions, expectations, and information.
10. If #9 is accomplished, it would then be very interesting for the entire group to hear a description of the interview and hold a discussion.

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TITLE:

STUMP THE STUDENTS
by Phil Palmer Highland Park Intermediate School Beaverton, Oregon

OBJECTIVE:

To acquaint 7th or 8th grade students with the different CIS files and the types of information located in them.

TIME:

Any length of time

MATERIALS & FACILITIES NEEDED:

CIS Terminal
Log-in instructions
CIS User's Handbooks (1 for each student)
Questions (Sample questions on next page)

METHODOLOGY:

1. Give each student a handbook.
2. Place the terminal in front of the class and log-in.
3. The instructor reads a question to the group.
4. Using the handbook, the students identify what file and code number is needed to access information which will answer the question.
5. The first student with an answer enters it on the terminal.
6. If the printout answers the question, he scores 100 points. If not, try someone else's answer.
7. When a correct answer is achieved, the instructor reads another question.

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Sample Questions for Stump the Students

1. What is the in-district resident tuition at Mt. Hood Community Collegé?

2. What high school courses should you take if you are interested in social service occupations?

3. Where could I get training to become a millwright?

4. Is there an Explorer Post in this community for fire fighters?

5. What is the starting salary for nurses in this county?

6. What work duties are involved during a day on the job as an operating engineer?

7. What books could I read to find more information about Pilots and Flight Engineers?

8. What skills do I need to become a diesel mechanic?

9. Could I study music at Lane Community College?

10. What are room and board costs at a dorm at Southern Oregon State College?

TITLE:
DEAR DIARY
by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE:
Junior high school students will become aware of the daily decisions and working day of people in specific jobs.

TIME:
2-3 class periods

MATERIALS & FACILITIES NEEDED:
CIS Occupational Information Printouts or CIS Terminal
Occupational Outlook Handbook

METHODOLOGY:
1. One class period is spent explaining the following steps in the activity:
   a. Using CIS occupational descriptions, the student is to select one to read.
   b. The student then writes an entry in a diary or a letter home, telling about one day or week on the job.
   c. The students must incorporate, in the writing, the information from resources, as well as describe how they personally visualize the job.

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TITLE: DATA, PEOPLE, THINGS

by Marilyn Fellers Binnsmead School Portland, Oregon
submitted by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE: To have junior high students find documented information on a job and organize the information into a report, either written or oral.

TIME: 3 days to a week of class time for preparation and 5-10 minutes for each oral report, if given.

MATERIALS & FACILITIES NEEDED: Occupational Outlook Handbook -- Dictionary of Occupational Titles -- CIS Needle-Sort or CIS Terminal -- CIS User's Handbooks -- 1 copy of resource sheets for the person directing the activity (see following page)

METHODOLOGY:

1. Teacher explains data-people-things functions. (Read over the resource sheets that follow this recipe before beginning the activity.)
2. Students are to choose a job title from the Alphabetical List in the User's Handbook, considering their preference for working with people, data, or things.
3. Using the jobs they have selected as a topic, students will organize reports using a variety of sources including one visual aid. The report should include information on:
    a. data, people, things relationship (to be explained by the teacher)
    b. job training requirements
    c. salary range
    d. advancement opportunities
    e. employment outlook
4. Students should use one visual aid to do one of the following:
    a. create interest in the job
    b. explain a particular detail about the job
    c. visualize some aspect of the job

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RESOURCE SHEETS FOR GROUP LEADER

This explanation of Data, People, Things Relationship has been adapted from Sidney A. Fine and Wretha W. Wiley, An Introduction to Functional Job Analysis, pp. 31-41 and the Dictionary of Occupational Titles (Third Edition) volume II, Appendix A. The material is a resource to use in leading "People, Data, Things" by Marilyn Fellers.

Data Function Scale

Data should be understood to mean information, ideas, facts, and statistics. Involvement with Data is inherent in the simplest job instruction in the form of recognizing the relationship of a tool to its function or the significance of a pointing instruction. Data are always present in a task even though the major emphasis of the task might be dealing with Things and/or People. Where Things are primarily involved, Data tend to show up as specifications. Where People are primarily involved, Data tend to show up as information about objective events or conditions, information about feelings, or ideas that could be tinged with objective information and/or feeling. The Data Scale measures the degree to which a worker might be expected to become involved with Data in the tasks he is asked to perform from simple recognition through degrees of arranging, executing, and modifying to reconceptualizing the Data.

It is important to distinguish these functions in a work situation from those occurring in a learning situation.
In a sense, every new learning involves synthesizing and hence all subsidiary functions - slowly or in a flash.

Data Function Scale:	QUEST Question:
0 Synthesizing 1 Coordinating 2 Analyzing	16 Interpreting Facts
3 Compiling 4 Computing	17 Organizing and Using Information
5 Copying 6 Comparing	18 Copying, Sorting, Putting Things Together

People Function Scale

The substance of the live interaction between People (and animals) is communication. In the broadest sense the communication can be verbal or nonverbal. What gives communication its complexity is the heavy load that messages carry; e.g., Data in their objective and subjective forms -- the way in which they are delivered (volume, tone, accompanying gesture, and the formal rules and informal customs that govern the context of the communication). Since there is a large subjective element on the part of both the sender and the receiver

of a communication, it is very difficult to measure or to assign absolute values or primary importance to one or another type of information in the interaction.

What further complicates pinning down the nature of specific interpersonal behavior is that affect can serve as a tool for managing oneself in the interaction as well as the informational substance of the interaction. Affect, as information and as tool, can occur in the simplest as well as the most complex interactions. For example, affect expressed as a sulky manner, perhaps to gain attention or perhaps to express resentment on the part of an entry worker, can quickly become the informational substance of the interaction, when the supervisor asks nonreactively, "Don't you feel well?" and gets a positive answer, "No, I don't. My child is ill. I should be home!"

The functions in the People Scale deal with these complex questions only indirectly. The assumption of ordinality is somewhat more tenuous than in the Data and Things Scales and depends more heavily on role, status, and authority which are often associated with, but not necessarily a part of, skill. In effect, the functions try to capture the variety of interpersonal behavior assigned in various work situations and are more or less arranged, as in the other scales, according to the need, in general, to deal with increasing numbers of variables and with greater degrees of discretion. (The function least likely to fit this pattern is Supervising, which probably could have a scale of its own.)

Skill in dealing with People is undoubtedly as much an art as a methodology, and on every level it is especially necessary to delineate the descriptive and numerical standards by which a function can be appraised in the task in which it occurs. This is true for the simplest function as well as the most complex. Admittedly, measurement in this area is in a primitive state, but significant beginnings have been made.

In delineating standards for People functions on different levels, one should especially note the cultural boundary conditions and how they moderate the expression of affect on all levels. We have in mind here the rules of courtesy in such a matter as Taking Instructions-Helping, diplomatic protocol in various types of Negotiating, and "rules" of behavior in patient-doctor Mentoring. These cultural boundaries undoubtedly have a very definite effect on the prescription and discretion mix of a particular functional level.

People Function Scale:	QUEST Question:
0 Mentoring	14 Giving Counsel
1 Negotiating	20 Discussing, Bargaining
2 Instructing 3 Supervising 4 Diverting	21 Instructing, Supervising
5 Persuading	22 Selling, Persuading
6 Speaking-Signaling 7 Serving	23 Assisting

Things Function Scale

Working with Things means literally the physical interaction with tangibles, including taken-for-granted items such as desktop equipment (pencils, paper clips, telephone, handstamps, etc.); blackboards and chalk; and cars. Physical involvement with tangibles such as desktop equipment, etc. may not seem very important in tasks primarily concerned with Data or People, but it is quickly apparent when handicap or ineptness occurs. An involvement with Things can be manifested in requirements for the neatness, arrangement, and/or security of the workplace. Workers who make decisions or take actions concerning the disposition of Things (tools, materials, or machines) are considered to be working mainly with Data, although they physically handle Things (e.g., records, telephone, and catalogs).

Things Function Scale:	QUEST Questions:
0 Setting-Up 1 Precision Working	13 Precision Work
2 Operating-Controlling 3 Driving-Operating	14 Operating Equipment
4 Manipulating 5 Tending 6 Feeding-Offbearing 7 Handling	15 Handling Materials

TITLE: RESEARCH PAPER

by Dick Rumble Adams High School Portland, Oregon
submitted by Phil Palmer Highland Park Intermediate School
Beaverton, Oregon

OBJECTIVE: For junior and senior high and community college students to become familiar with CIS, complete an occupational research paper and have a printout of information related to one occupation.

TIME: The students will work on an individualized basis. The time allotment will need to be flexible.

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Printouts
CIS User's Handbooks
Telephone or City Directory
Copies of research paper outline (see following pages)

METHODOLOGY:

1. Select students with a specific interest and ability in one subject matter area.
2. Encourage the individual to do some further research on occupations related to his or her area of interest.
3. Student or teacher can obtain a list of occupations related to the student's area of interest by reading the appropriate PROGRAM file statement or reviewing the alphabetical list of occupations in the CIS User's Handbook.
4. Ask the student to research one of the occupations.
5. Provide the student with:
   a. CIS User's Handbook
   b. the outline called Occupational Research Paper (sample following)
6. Student should complete a research paper using the outline and materials made available
7. Before students begin, explain the instructions for using CIS and provide an overview of what kinds of information are found in specific files. The following sources for the research paper should serve as a guide.

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CIS Sources for Research Paper

Cluster: Check the first two digits of the four-digit occupation number.

Duties: from DESCRIPTION file

Skills: from PREPARATION file

High School Courses: from PREP file for the cluster (PREP and first two digits of occupation number)

Schools: from PROGRAM file

Aptitudes: from DESC file

Demand: from DESC file

Hours: from DESC file

Hazards: from DESC file, if known

Organizations: from DESC file, if required

Firms: get leads from statements about major types of employers in DESC file

Occupational Research Paper

Name_____

Date_____

Complete the blanks or underline either Yes or No. Use additional pages if necessary.

Cluster the Occupation is found in_____

_____

Name of the particular occupation_____

_____

Duties of the Job (List minimum of five duties.)

1._____
2._____
3._____
4._____
5._____
6._____
7._____

Skills needed for the Job (Typing, Cooking, Writing, etc.)

1._____
2._____
3._____
4._____
5._____

What courses in high school would help to prepare you for this Job?

_____ _____
_____ _____
_____ _____
_____ _____

What schools offer training for this Job?

1.
2.
3.

Aptitudes needed for the Job (List minimum of five.)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Demand for workers in this Job

Are additional workers needed now in this occupation? Yes or No

Will still more workers be needed in the future? Yes or No

Do you consider chances for employment in this field bright, dead end, or non-existent?

(Underline the one which applies and describe briefly.)

Earnings

Beginning wage (Indicate per hour, per week, or per year)

Other Benefits

1. _____
2. _____
3. _____

Hours of Work

How many hours on the average would one work in this job?

1. Daily_____
2. Weekly_____

Are there seasonal lay offs? Yes or No

Health and Safety

Are there health hazards involved? Yes or No

If so, what kinds?_____

_____

Employee Organizations of a full-time worker.

Would you be expected to join a union or other employee organizations? Yes or No

Firms in our town or county where this type of job would be available.
(List a minimum of three.) Name and address. Be specific.

1._____

2._____

3._____

4._____

5._____

Sources of information used to make this study. (List a minimum of three.)

1. Title_____
   Publisher_____
   Date Published_____
2. Title_____
   Publisher_____
   Date Published_____
3. Title_____
   Publisher_____
   Date Published_____

   Additional Means

   1._____
   2._____

How does this job interest you?

Appealing_____ Disappointing_____ No interest_____

Why? Be specific_____

_____

_____

TITLE: UNDERSTANDING INTERESTS

by Steve Larson Columbia School Portland, Oregon
submitted by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE:

Junior and senior high school students will acquire self understanding of their interest patterns.

TIME:

2-5 hours

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Needle-Sort
CIS User's Handbooks

METHODOLOGY:

1. Student should complete CIS QUEST.
2. Student should discuss the results with other students, teachers, parents, and counselors.
3. The student should then respond, in writing, to an employment ad requesting a person with the interest-aptitude traits he possesses.
4. In another written assignment, the student might explain why he feels he possesses those particular traits

-or-

the student could give this information in the form of an oral report

-or-

the student could give this information in discussion within a small group.

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TITLE: ROLE OF WORK

by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: For junior and senior high school students to understand reasons for working and realize under what circumstances jobs are taken.

TIME: 2 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
CIS User's Handbooks

METHODOLOGY:

1. Have students complete and process the QUEST questionnaires.
2. From their subsequent list of occupations, have them select five occupations they would like to enter and five occupations they would not like to enter.
3. Then have them write a paper on why they value the five they said they would enter, higher than the undesirable five. And, have them write under what conditions they might find themselves entering one or more of the undesirable occupations.
4. After completion of the exercise, class discussion may ensue about the interplay of values in job selection.
5. The exercise should help students understand what circumstances motivate people to take certain occupations (e.g., training, money, background, job availability, etc.).

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TITLE: Vocabulary and the World of Work

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: To inform students of the importance of a good command of language to performing in the work world.

TIME: Enough time so each student may use the Needle-Sort (1 or 2 class periods).

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort (deck and occupational information printouts)
CIS User's Handbooks (enough for each class member)

METHODOLOGY:

1. Students may work individually or in small groups.
2. Have the students use the Needle-Sort to answer Question #10 - "Ability with Words" with 'fairly poor" (VFP-30). (Occupations that drop off the needle and are eliminated are those that require average or better -- "fairly good" or "very good" -- ability, i.e., verbal aptitude in the middle or upper third of the population.)
3. Have each group or individual choose five interesting jobs that fall out and are eliminated when the question is answered in this way.
4. Have the students discuss reasons why they think that an ability with words is an important factor for each of the occupations.*
5. Then have each group or individual choose five interesting jobs that remain on the needle and discuss reasons why they think that an ability with words is not an important factor for each of the occupations.*
6. The class then may discuss how verbal ability relates to a variety of careers.

*The CIS occupational information printouts can be a useful resource when discussing aspects of job duties and the abilities required.

NOTE: This technique may be used with any interest question (questions 13-23 in the CIS User's Handbook).

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SOCIAL STUDIES

The following collection of CIS* instructional materials or "recipes" has been provided to assist teachers and counselors in helping students and clients with their career information and decision-making needs.

This Social Studies section is broad based and addresses the ever-changing "reality" of population trends, labor market shifts and fragile resource bases. It encourages individuals to evaluate their personal values as they affect job choice and location. Considerable emphasis is placed on determining worker traits and satisfactions that can be derived from working.

RECIPES

31. Cartons of What??
32. How Well Do You Know Your Parents?
33. Interests, Occupations & Employment
34. Not Gold but Sand and Gravel
35. Staff of Life
36. What Shall I Do Now?
37. Where to From Here?
38. Worker Interest Patterns
39. Physical Handicaps
40. Moving Right Along
41. Necessity is the Mother of Invention
42. Social Security Card
43. U.S.A. Population Growth
44. You Want to Do What Where???

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403
(503) 686-3872

*CIS is presently being used in nearly 400 schools, colleges, and social agency settings in Oregon where career planning is on-going.

TITLE:

CARTONS OF WHAT??

by Gene Gehrke Woodmere School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE:

To develop junior and senior high school students' knowledge of 1) information given on the label of purchased products and 2) the number of jobs created while developing raw resources into finished products.

TIME:

2-3 days

MATERIALS & FACILITIES NEEDED:

Empty cereal boxes
CIS Occupational Information Printouts
Dictionary of Occupational Titles
Occupational Outlook Handbook
Appropriate science text

METHODOLOGY:

1. Give each student (or each group of students) several kinds of empty cereal boxes.
2. Ask the students to read the labels and list the information found on the carton.
3. Ask them to compare the information given concerning one kind of cereal with that given about another.
4. Using the available resources, list as many jobs as you can which are responsible for getting the cereal to your table. Use Occupational Outlook Handbook, Dictionary of Occupational Titles and CIS Occupational Information Printouts to find out about occupations listed.

Note: This activity could be adapted to deal with any product or job cluster.

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TITLE: HOW WELL DO YOU KNOW YOUR PARENTS?

by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE: Junior and senior high school students will list interest patterns of their parents and speculate on the effect of those interest patterns on their job satisfaction.

TIME: 2 class periods and time for discussion between student and parent

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Needle-Sort
CIS User's Handbooks

METHODOLOGY:

1. This activity may precede or follow the students' use of QUEST.
2. Students should list 5-6 interest patterns of one of their parents.
3. Students should interview their parent to identify interests the parent feels he or she possesses.
4. The students should attempt to match parent interests and job requirements using questions 13-23 in the QUEST.
5. A follow-up discussion would take place in class, when most students have completed their interviews.

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TITLE:

INTERESTS, OCCUPATIONS & EMPLOYMENT

by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE:

Junior high school students will identify occupations that interest them and then, using telephone directories, identify specific places where one might be employed in the occupations.

TIME:

2-3 days

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
Telephone directories
Maps - local, state or even national

METHODOLOGY:

1. Students will fill out QUEST.
2. They will obtain a list of occupations and perhaps identify some interests and aptitudes they possess.
3. Using a telephone directory, students will list and/or plot on maps the possible sites where one of the occupations on their list is located.
4. One more step could be to plan site visitations.

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TITLE: NOT GOLD BUT SAND AND GRAVEL

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland Oregon

OBJECTIVE: Junior and senior high and community college students will use deductive reasoning and simple research to figure costs and implications of hauling or importing sand and gravel into the Portland, Oregon, area if supplies of this resource are exhausted. The costs of this hypothetical problem will be calculated with 90% accuracy.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED: Telephone directories for Portland and vicinity -- Dictionary of Occupational Titles -- Occupational Outlook Handbook -- CIS Terminal and/or CIS Needle-Sort-- Booklets prepared by the Oregon Geology Lab (obtain from State Office Bldg., Portland -- Speaker: Dr. Mason, state geologist on topic of Problems of Natural Resources -- Field Trips: sand and gravel mining sites.-- simple map of area mining sites.

METHODOLOGY:

1. Teacher will lead a discussion concerning where the sand and gravel in our area comes from.
2. Students are asked to list occupations involving mining sand and gravel and locate some mining sites.
3. An outside speaker may be invited to visit the class and discuss natural resources, providing general background.
4. Next students are asked to list industries that depend on sand and gravel (e.g., road building, home construction, concrete manufacturing).
5. Then students are asked to calculate costs of present sand and gravel industry versus the cost if the existing supply of this resource in the area was exhausted and sand and gravel had to be imported.
6. Some students may wish to undertake a research project to determine from an economic point of view how one selected industry using sand and gravel made it. The research will lead the students to sand and gravel pits in Oregon.

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TITLE:

STAFF OF LIFE

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE:

Each high school science class participant will research and list no less than 6 jobs in farming and harvesting of food, 6 jobs in farm equipment (related) industries, and 6 jobs in the wholesale marketing of the above products.

TIME:

2-3 days

MATERIALS & FACILITIES NEEDED:

Speakers
Field trips
CIS Terminal and/or CIS Needle-Sort
CIS User's Handbooks
Library facilities

METHODOLOGY:

1. A class discussion will be held in which the teacher will assist the class in tracing a farm product from seed to market.
2. During this discussion, emphasis will be placed on the jobs involved in farming & harvesting (e.g., farmers, soil conservationists, seed salespeople), jobs involved in farming equipment (e.g., tractors, irrigation, mechanics), and jobs involved in marketing (e.g., canneries, exporters, distributors).
3. The students will then be asked to research 6 jobs in each of the above mentioned areas.

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TITLE: WHAT SHALL I DO NOW?
by Dick Rumble Adams High School Portland, Oregon

OBJECTIVE: For junior and senior high school students to become aware that occupations can be closely related and that occupational worker traits may overlap. They also learn to gather data to make decisions.

TIME: Approximately 2 days

MATERIALS & FACILITIES NEEDED:

CIS Terminal or 4-5 Needle-Sort decks
CIS User's Handbooks
Personal history (sample follows)
Occupational Outlook Handbook
Dictionary of Occupational Titles

METHODOLOGY:

1. Give each class member a copy of Jack's personal history. (Sample history follows)
2. Arrange the class in small groups (5-6 people).
3. Ask each group to complete QUEST for Jack using the information provided. Groups will likely need to negotiate answers.
4. Each group should take a completed QUEST to the terminal or needle-sort deck and obtain a list of occupations for Jack. They should also get an appropriate occupational description and preparation, program and school information.
5. Hold small group or classroom discussions concerning decisions Jack should make.
6. In another session have the groups discuss the discrepancy in QUEST responses among groups and the reasons that the occupation, program, etc. one group selected might differ from those of another group.

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Personal History of Jack

Describe the following situation to the group:

Jack is a nineteen year old senior. His grades are average, but he is a very bright person. He is interested in mechanics, and several people have encouraged him to become a mechanical engineer. The thought interests him, but he wonders if he has enough math background (second year algebra), and whether or not he wants to go to school that long. Jack is from a large family, with only an average income, and he also has some concerns about the costs of his education. He also likes the out of doors and thinks he might like to work outside in a rural area. What should Jack do?

Teacher's Note: The history may be rewritten to deal with almost any subject area.

TITLE: WHERE TO FROM HERE?
by Norman Berney Clackamas Community College Oregon City, Oregon

OBJECTIVE: Students will relate their personal values to the work world and to an occupation of interest, by using CIS.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

CIS Terminal or CIS Needle-Sort (deck & occupational information printout)
CIS User's Handbooks
"Deciding" (if available) from CEEB

METHODOLOGY:

1. Each student is given a User Handbook & asked to write down 5 occupation titles in which he/she has an interest. (Refer to pages 8-13.)
2. The teacher can then lead a discussion of the relationship of personal values to the selection of occupational choices. The CIS QUEST questionnaire and/or materials from the College Entrance Examination Board's Deciding program may be used to stimulate discussion. Whatever the case, values like prestige, living location, money, leisure time, etc. should be related to occupational choice-making.
3. Have the students complete the QUEST questionnaire and discuss each of the questions in relation to value identification and to their personal objectives.
4. Assign each student to then go through the computerized or needle-sort version of CIS and (a) complete QUEST; (b) find out "WHY NOT" any of their pre-selected occupations are not on their QUEST list; and (c) get occupational and educational information concerning occupations in which they are interested.
5. After each student has used the System, a class discussion should ensue dealing with the following questions: Did your pre-selected occupations show up on your list? If not, why not? What new occupations did you discover that you have interest in now?, etc. Students could be asked to write a paper on the foregoing.

NOTE: The teacher needs to be familiar with QUEST and the relationship of the questions to various occupations as well as with relating personal values to occupational choice-making.

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TITLE:

WORKER INTEREST PATTERNS

by Marilyn Fellers Binnsmead School Portland, Oregon
submitted by Dick Rumble Portland Public Schools Portland, Oregon

OBJECTIVE:

7th and 8th grade students discuss and realize the relationship between interest patterns and successful employment (or settling).

TIME:

1 class period

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks

METHODOLOGY:

1. Students will be given the following imaginary situation:
   Imagine that twenty people are going to establish a community in Alaska. There is nothing there now except some buildings that could be used for temporary living. There is potential wealth in natural resources, recreation and tourism, and agriculture.
2. They will then be asked to list the interest and aptitude patterns important to the "settlers" in order for the settlement to be successful.
3. The teacher can use QUEST as a stimulator for class discussion, ranking the importance of traits, i.e., can lift weights, prefer to work out of doors, working with people, etc.

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TITLE: PHYSICAL HANDICAPS: ARE THEY JOB HANDICAPS??

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE: For junior & senior high school students to become aware of how they feel about the productivity of a handicapped person.

TIME: 1 or more class periods. It is essential to the success of the activity that each student use the needle-sort.

MATERIALS & FACILITIES NEEDED:

CIS Needle-sort
CIS User's Handbooks
Worksheets (sample on following pages)
1 Occupational Information Printout

METHODOLOGY:

1. Have the students work individually or in small groups.
2. Have the students pretend that they have a certain physical handicap: sight, hearing, little or no use of legs, arms, etc. It might be effective to go into a simulation exercise with the students actually going about their daily lives with such a handicap.
3. Have the students describe in one or two sentences, the handicap that they have chosen. It is important that they record how they view the handicap. What things can they do? What things are they unable to do? How do they feel?
4. Have the students select questions from QUEST that are affected by the handicap and list the questions and appropriate answers on the worksheet.
5. The students should now use the needle-sort deck and sort the cards. Have them list 5 of the "best" jobs that were lost from the deck.
6. Have the students list 5 "interesting" jobs that remained on the needle.
7. Ask the students if they agree with the results. Is it a good idea for employers to hire the handicapped?
8. Class discussion may ensue following the completion of the exercise.

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NEEDLE-SORT/CAREER AWARENESS and EXPLORATION Name _____

Physical Handicaps: Are They Job Handicaps???

Pretend that you have a particular physical handicap: sight, hearing, mental, little or no use of legs, arms, etc. Describe your handicap in one or two sentences:

_____

_____

_____

Which of the 24 questions would be affected by your "handicap"? List those questions below, and the appropriate answer.

Questions	Answers
Example: 1 Lifting	No

Now put your needle through the holes for the questions listed above and list some of the "best" jobs you would lose from the deck.

_____ _____

_____ _____

_____ _____

List interesting jobs that remained on your needle after all these questions were answered. From what you have discovered here, do you think it's a good idea for employers to hire the handicapped?

Jobs left	Comment: _____

TITLE: MOVING RIGHT ALONG
by Alice Brown Wilson High School Portland, Oregon

OBJECTIVE: To help junior and senior high school students realize that due to our mobility today the moving industry is big business and offers many opportunities for careers. Students will be able to name several companies offering different types of service (e.g., U-Haul, Long Distance, Moving and Storage, etc.) and list jobs associated with each.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED: CIS Terminal or CIS Needle-Sort-- CIS User's Handbooks -- Telephone Book -- Speaker -- Field Visit -- Occupational Outlook Handbook

METHODOLOGY:

1. Discuss the rapid increase in number of families on the move in our country and the reasons, such as company transfers, better jobs, health, change in family situation, etc.
2. Ask the students to obtain information about the kinds of jobs available in moving companies and opportunities in the field by checking telephone directory for names of companies or by visiting two different types of moving companies (U-Haul and standard type).
3. Have the students, through use of Career Information System Terminal or Needle-Sort, obtain further information about each job: training or education required, schools in Oregon that offer this training, etc.
4. Invite a speaker from a local moving company to bring a film and to answer questions about the opportunities in this business.
5. Then ask students to explore occupations in which moves are frequent (e.g., company transfers, seasonal farm workers, etc.) using CIS and or Occupational Outlook Handbook.
6. Explore with the students how a person needing to move might best make use of the services discussed in instruction #2 (e.g., by comparing prices, types of services available, by fitting type of service to the person's specific needs, etc.)

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TITLE: NECESSITY IS THE MOTHER OF INVENTION - AND TOMORROW'S JOBS

by Alice Brown Wilson High School Portland, Oregon

OBJECTIVE: To help junior and senior high school students realize how jobs change, appear, and disappear because of changing styles and conditions, scientific discoveries, inventions, etc., and to know that his/her future occupation may not yet be in existence.

TIME: 1 week

MATERIALS & FACILITIES NEEDED: CIS Terminal and/or CIS Needle -- CIS User's Handbooks -- Occupational Outlook Handbook -- Magazines (Current & Old) -- Newspapers (Current & Old) -- Library

METHODOLOGY:

1. Using textbooks, magazines, newspapers, and library resources, ask student to find names of two jobs that have disappeared. Then ask student to find two jobs that have been created in the past five or six years and one job just now emerging - a job of the future. These should be in a career area in which he/she is interested.
2. A report on the two existing jobs and the job of the future should be prepared using information from the periodicals, the available reference books and the Career Information System (including occupation description, preparation, training program, and school files).

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TITLE:

SOCIAL SECURITY CARD

by John Callas Marysville School Portland, Oregon
submitted by Vickie Gardner Hillsboro High School Hillsboro, Oregon

OBJECTIVE:

Junior and senior high school students should gain insight into the reason for Social Security cards, gain experience in filling out the application form, and gain experience in choosing a job.

TIME:

1 week plus 1 or 2 sessions

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS User's Handbook
Social Security Card Application
Pamphlets from Social Security office
Optional: Speaker from Social Security office

METHODOLOGY:

1. Students will first hear a speaker from the local Social Security office and/or go over the pamphlets explaining the Social Security program. A quiz could be given on this information.
2. Students will be instructed in how to fill in the information needed to complete the application card.
   Potential Problems:
   a. mother's maiden name
   b. year born (not this year)
   c. in ink
   d. legibly printed
   e. use legal names - no nicknames
3. Students will complete application card.
4. Students will discuss the importance of work in one's life and the importance of finding a job suitable to one's interests, abilities and lifestyle.
5. Students are instructed in the use and purpose of the QUEST and assisted in filling out QUEST.
6. Each student is helped to go through QUEST and obtain a list of occupations.
7. 6-8 weeks later each student hands in a paper containing his/her Social Security number and 3 jobs he/she is interested in (from the QUEST).

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TITLE: U.S.A. POPULATION GROWTH
by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: To understand the effects population growth and shifts in the labor market will have on a student's choice of a career.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
CIS User's Handbooks
Occupational Outlook Handbook
Dictionary of Occupational Titles

METHODOLOGY:

1. Students complete QUEST.
2. From their list of occupations, they select 3 they might like to pursue.
3. Using occupational descriptions, PREP, and other sources, students research the long-range occupational outlook for their 3 occupations.
4. Students then write a paper explaining their findings including past and projected employment trends; what factors will influence future trends; and what factors might change the employment forecast, etc.

NOTE: The teacher may integrate research skills into this exercise.

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TITLE: YOU WANT TO DO WHAT WHERE???

by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE:

Junior and senior high students shall become aware that choice of job location pre-determines the number and choices of available jobs.

TIME:

1 class period

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks
CIS Needle-Sort deck

METHODOLOGY:

1. Organize students into small groups, each group with a needle-sort deck.
2. Using the deck and needle, each student should answer questions 4 and 5 (region and city size).
3. Students will then look through the remaining deck, placing the cards in piles of interest levels (good, fair, poor for example).
4. Looking through the good pile students should ask: Are the jobs I am primarily interested in at this time in the pile? If not, it was my choice of location. Am I willing to live in another region? Am I willing to change the size of the city in which I live and work?
5. Some students may want to sort their chosen job from the discard deck if they don't have it in their piles and re-evaluate their answers based on new information.

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SCIENCE

TITLE: COMPARING FUTURES IN SCIENCE
by Carolyn Voit Wilson High School Portland, Oregon

OBJECTIVE: To have high school and community college students compare 2 related occupations and learn to what extent education and preparation affect earnings and opportunities for advancement in the field.

TIME: 3 days to 1 week

MATERIALS & FACILITIES NEEDED: Worksheets (sample following) -- CIS Terminal and/or CIS Needle-Sort-- CIS User's Handbooks -- Occupational Outlook Handbook -- Career Center resources (if available)

METHODOLOGY:

1. Teacher distributes a worksheet and a CIS User's Handbook to each student.
2. The students are asked to choose 2 science related occupations -- one requiring 2 or more years of education beyond high school, the other requiring less than 2 years training.
3. Students are encouraged to use the career center (if available) and the library to supplement information gathered from CIS.
4. The students will work on an individual basis for approximately 1 week (or less) and then a class discussion will be held to exchange findings.
5. A visit to a job site could be a very valuable addition to the previous activities.

NOTE: Sample worksheet on following page suggested by Alice Brown, Wilson High School.

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NAME _____

	#1 Science Related Occupation (2 or more years beyond high school)	#2 Science Related Occupation (Less than 2 years training)
Wage Range (hour, week, month)		
Hours of Work (day, week, month)		
Vacation (days, weeks, per year)		
Union or License		
Education required		
Specific High School courses		
Outlook over next 5-10 years?		
Disadvantages		
Opportunity for Advancement		
Where can you get training around here?		
Where you would work?		
Job Security		
Fringe Benefits		
Personal qualities		
Retirement		
(optional) Interview of a person		

Career Information System **No.** 46

TITLE: OUR HUMAN ENVIRONMENT

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: To acquaint 7th & 8th grade students with ecosystems and the jobs and job descriptions related to a few select ecosystems.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED: CIS Terminal or CIS Needle-Sort with occupation information printouts -- CIS User's Handbooks -- List of ecosystems -- Poster paper -- Magazines -- Scissors & glue -- Felt Pen

METHODOLOGY:

1. The class is presented a list of 10 ecosystems.
2. Each student selects one ecosystem to be the topic of a collage and research.
3. The students are to make 1 collage each representing their selected ecosystem (e.g., fish, birds, water, cities, sports).
4. The student must then determine the jobs related to that ecosystem. Have students use CIS occupational files for their research.
5. Students are then asked to make a collage representing those jobs and to write a report including the job descriptions.
6. Terminal time or availability of the needle-sort and occupation information printouts will be necessary resources to be planned in advance.

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Career Information System No. 47

TITLE: VIEWMASTER

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: To give students an opportunity to view the lens making industry and evaluate the processes involved.

TIME: 2-3 days

MATERIALS & FACILITIES NEEDED:

Field trip arrangements to GAF Corporations, Progress, Oregon
Occupational Outlook Handbook
Occupational Information Printouts
CIS Terminal
CIS User's Handbooks

METHODOLOGY:

1. Each participant of this science field trip will:
   a. observe the process of plastic lens making (also plastic cases)
   b. observe the packaging processes
   c. observe the recycling of plastic waste products
   d. summarize no less than ten job activities observed in the processes
2. Students will relate process of making plastic lens, grinding, polishing, etc. in a short report.
3. They will list special skills required and special precautions employed to prevent flaws or scratches in lens making.
4. If only a small group attends, they will relate their report to the balance of class who didn't have the opportunity to observe the processes.
5. Students will compare their observations with the information available through CIS concerning the jobs' preparation, descriptions, programs, etc.

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TITLE: Our Feet on the Ground

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: To acquaint science students with the many occupational specialties that exist within the natural science area of geology.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

CIS Occupational and Program Information Printouts
Occupational Outlook Handbook
Dictionary of Occupational Titles, Vol. I, 3rd Edition
School catalogs, telephone directories
Speakers (like state-employed geologists) optional

METHODOLOGY:

This activity is designed to give students an idea of the many specialties that may exist within a general occupational title like "geologist." The instructor may wish to mention to the class that "geologist" is a very small occupation, however, and each of the occupational specialties that the class will work on in this exercise is even smaller. In 1975 approximately 116 geologists of all types are employed in Oregon (or .012% of the total number of people employed in the state).

1. Have students each choose three types of geologists from the accompanying list for research.
2. For each occupational specialty, have the student state:
   a. the tasks performed by the geologist in the specialty
   b. how the geologist serves industry and/or society
   c. some of the opportunities for technical assistant positions
3. Suggest the following resources for students' research:
   a. Career Information System's occupational printouts (DESC 2626 Earth Scientists and DESC 5914 Petroleum Production Workers); and program of study printouts (PROG 526 Geology).
   b. Occupational Outlook Handbook (see "Environmental Scientists" and "Petroleum Geologists.")
   c. Dictionary of Occupational Titles, Vol. I, 3rd Edition (see Geologists," p. 331).
4. Field trips or speakers (geologists) may augment this activity.

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GEOLOGIST SPECIALTIES WORKSHEET

1. Petrologists
   D.O.T. 024.081.066

2. Volcanologists
   D.O.T. 024.081.086

3. Geomorphologists
   D.O.T. 024.081.030

4. Paleontologists
   D.O.T. 024.081.062

5. Stratigraphers
   D.O.T. 024.081.078

6. Geological Oceanographers
   D.O.T. 024.081.054

7. Mineralogists
   D.O.T. 024.081.050

8. Geophysicists
   D.O.T. 024.081.038

9. Petroleum geologists
   D.O.T. 024.081.022

10. Hydrologists
    D.O.T. 024.081.046

For three of the above occupational specialties, provide the following:

* Tasks performed by the geologist in the specialty

* Ways the geologist serves industry and/or society

* Opportunities for technical assistants in the specialty

MATHEMATICS

TITLE:

WHAT A DIFFERENCE MATH MAKES

by Vickie Gardner Hillsboro Senior High Hillsboro, Oregon

OBJECTIVE:

Students will know what careers are open to them if they have high, average, or low math ability.

TIME:

2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS User's Handbooks

METHODOLOGY:

1. Ask the class what difference math knowledge makes in career choice.
2. Have class make lists:
   a. occupations requiring high math ability
   b. occupations requiring average math ability
   c. occupations requiring little math ability
3. The students and teacher complete 1 QUEST, marking NVG for question 11. They obtain a list of occupations.
4. They repeat the process responding NFG for question 11, and obtain a list.
5. Again repeat the process responding NFP for question 11, and obtain a list.
6. A class discussion ensues in which the emphasis is place on "what a difference math makes" in occupational choice.

NOTE: This same exercise can be used by an English teacher using question 10, a counselor using question 7 with potential drop-outs, etc. The important aspect of the exercise is to keep all responses consistent except for the experimental question. By comparing the different lists of occupations obtained by varying the responses to the experimental question, the importance of that aspect on occupational choice can be discussed.

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TITLE: MATH & OCCUPATIONS

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Paul Franklin CIS Eugene, Oregon

OBJECTIVE: To inform junior & senior high school students of the relationship between competency in using numbers and occupations.

TIME: The time necessary for each individual or every s roup to use the needle-sort (30 minutes to 1 hour).

MATERIALS & FACILITIES NEEDED:

CIS Needle-sort decks

METHODOLOGY:

1. Organize class in small groups, if you wish.
2. Instruct the students about how to use the needle-sort deck.
3. Using only the question "Ability with Numbers", students are instructed to respond Fairly Poor - (NFP - 32).
4. Ask the students to select 5 occupations of interest that were eliminated.
5. Have students write why math is important for each of the selected occupations.
6. Class discussion may ensue.

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TITLE:

MEASURING TOOLS

by John Harris Binnsmead School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE:

For 7th and 8th grade students to become familiar with measuring tools and their use, and to become acquainted with occupations that require the use of such tools.

TIME:

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
An assortment of measuring tools

METHODOLOGY:

1. Students will use the measuring tools.
2. Students are to make a list of seven occupations that require the use of measuring tools.
3. Students will research two occupations of their choice including job description and training information.

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PHYSICAL EDUCATION

TITLE: Finding Out About P.E. Careers

by Sam Ignazzitto — Lent School — Portland, Oregon
and Dale Langley — Binnsmead School — Portland, Oregon
submitted by Cathy Williams — Madison High School — Portland, Oregon

OBJECTIVE: Students identify and describe three different occupations in the P.E. area, identify education requirements and post high school training programs.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

CIS Occupational, Program and School Information Printouts
CIS User's Handbooks (Needle-Sort version) for each student
Student Interview Forms (see attached sample)
Camera (optional)

METHODOLOGY:

1. Pass out to each student a copy of the CIS User's Handbook. Have students search the occupational list (pages 10-15) for occupations related to P.E. or read them the list of occupations below and have students mark the appropriate occupations in their handbook for later reference.

SELECTED OCCUPATIONS RELATED TO PHYSICAL EDUCATION

8122 Chiropractors
8458 Education Program Specialists (in P.E. area)
8126 Health Therapists (including physical therapists)
9868 Professional Athletes
9824 Radio & Television Announcers (sportscasters)
8488 Recreation Aides
8486 Recreation Leaders
8482 Recreation Program Directors
8456 Teachers, Elementary & Secondary (P.E. teachers)
2176 Writers & Editors (sportswriters)

2. Then have students mark the Programs of Study for Physical Education (PROG 235) and Health Education (PROG 232) from the handbook list (pages 16-20).
3. After students have marked these occupations and programs in their handbooks have them get into groups (2 to 6 students) and choose three occupations for research.
4. Using printed information (such as the CIS occupation, program and school printouts), students prepare short descriptions of the three occupations, identify the major education requirements for each occupation and identify, when appropriate to the occupation, two or three post high school training programs.
5. Students then arrange visits to observe the three occupations chosen. (In Lane County, students can be referred to the VISIT file.)
6. Students may use the questions on the interview outline (see following page) to construct their own interview form. Students then interview a person in the field for each occupation chosen. Pictures add interest to the activity (optional).
7. After all interviews are completed, class members compare their interview observations with their research into the occupations.

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Questions for an Occupational Visit

You may want to visit someone and talk about a particular line of work. You may also be able to see where the person works. Most people like to talk about their work, so you do not need to be nervous about contacting someone.

Before you go for the visit, you should become generally familiar with the occupation. The OCCUPATIONAL DESCRIPTION or other material will help you.

THE FOLLOWING ARE SOME QUESTIONS WHICH ARE OFTEN USED IN OCCUPATIONAL INTERVIEWS:

1. What is your job like?
   - A typical day: What do you do?
   - What kinds of problems do you deal with?
   - What kinds of decisions do you make?

2. What are the most important personal satisfactions and dissatisfactions connected with your occupation?

3. What social obligations go along with a job in your occupation?
   - Are there organizations you are expected to join?
   - Are there other things you are expected to do outside of work hours?

4. What things did you do before you entered this occupation?
   - Which have been most helpful?
   - What other jobs can you get with the same background?

5. What sorts of changes are occurring in your occupation?

6. How does a person progress in your field?
   - What is the best way to enter this occupation?
   - What are the advancement opportunities?
   - What are the major qualifications for success in this particular occupation?

SOME CAUTIONS:

There are other resources for personal counseling and guidance so you should not expect this person to help with your personal problems.

If you decide to follow this occupation you should remember that every job, even in the same field, is slightly different.

This is not a referral to a job opening, so do not expect to be offered a job.

Career Information System
February 1976

ART

TITLE:

CAREERS IN ART

by Jan Paeth Woodstock School Portland, Oregon
submitted by Sande Ferrell Glenhaven School Portland, Oregon

OBJECTIVE:

To have junior high students investigate and summarize, in writing, the job descriptions of 6 or more art-related jobs.

TIME:

3-4 class periods

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort, or
CIS Terminal
Dictionary of Occupational Titles - Art Careers on pp. 225-235
Occupational Outlook Handbook

METHODOLOGY:

1. Using the resource materials listed and any others the student may locate, he/she prepares summaries of occupational information for 6 or more jobs related to the field of art.
2. The teacher should supply the necessary information regarding summary style and content.
3. The teacher might request some of the following to be included:
   a. qualities other than talent needed to pursue the occupations
   b. qualities other than interest needed to pursue the occupations
   c. compose their own job descriptions for several occupations.

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PERSONAL FINANCE

TITLE: WARNING: THIS OCCUPATION MAY BE HAZARDOUS TO YOUR WEALTH
by Dick Sagara Community Experiences for Career Education Tigard, Oregon

OBJECTIVE: For small groups of junior or senior high school students to examine the costs of occupational preparation. The costs will be computed in terms of both time and money.

TIME: From 2 days to slightly over a week.

MATERIALS & FACILITIES NEEDED: CIS User's Handbook -- CIS Terminal -- an exercise sheet could be constructed outlining the steps to the exercise and/or containing the questions included in Step 9 of the methodology.

METHODOLOGY:

1. Announce the activity before the first meeting by telling the students they should be considering several occupations that interest them.
2. Divide the class into small groups (3-4) and have each group agree on several occupations they would like to investigate.
3. Have the students obtain the appropriate preparation files (both the high school subjects file and the "PREP" files) for their occupations.
4. Have each group narrow their selection of occupations to 2. NOTE: It might be interesting to have them select 2 occupations that vary greatly in amount and type of preparation needed for entry.
5. Obtain the "PROG" files for the 2 occupations if PROG files are listed in the PREP statement.
6. Have the groups find at least 3 schools that offer the courses needed to prepare for the occupations. NOTE: If one of the occupations calls for little or no advanced schooling, the students may stop at this step. The students should be discouraged from selecting 2 occupations that fit this category.
7. Students should then investigate the costs of these schools through use of the SCH file. Have them average the cost of schooling to enter the occupations.
8. Find the salaries of each occupation.
9. Use the following questions to look at expense, both time and money.
    a. What is the difference between the salaries for the two occupations?
    b. What are the respective costs in dollars to enter each occupation?
    c. Is there a relationship between the salaries for the occupations and the costs of preparing for the occupations? If so, why? If not, why not?
    d. How much time expense is involved? In other words, how long does it take to prepare for each occupation? Is it worth the time expense to you?
    e. Which occupation would you choose? Why?

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TITLE:

ECONOMICS AND YOUR LIFE STYLE

by Marilyn Olson Lane IED Eugene, Oregon
submitted by Dick Sagara $(CE)_2$ Tigard, Oregon

OBJECTIVE:

Junior & senior high school students will examine some of the things they expect to consume and will determine how much money they will need to fulfill their plans.

TIME:

Sufficient time to allow each student to use the CIS Needle-Sort (1-3 class periods).

MATERIALS & FACILITIES NEEDED:

CIS Needle-Sort
CIS User's Handbooks
Worksheet (sample follows)

METHODOLOGY:

1. This exercise may be done individually or in small groups.
2. As an assignment prior to the lesson, have the students clip from the classified ads a place that they would like to live in after they leave home (house, apt., room). Have them determine the monthly payment or rent on such a place.
3. Have the students fill out question #2 on the attachment. It might be interesting for students to compare the costs per month that they have in this section.
4. Have the students list 10 things that they plan to buy to furnish their place of residence. Using catalogs, newspaper ads, etc., have them list a price for each object.
5. Have them total the cost of the furnishings. Divide this by 12 to determine the monthly payments (this assumes that you could pay over the year).
6. Have the students add up the housing payment, food and clothing payment, and monthly furnishing payment.
7. Keeping the sum in mind, have the students determine the minimum salary that they would need. Remind them that 20% to 30% of your salary may be deducted for taxes and other "benefits".
8. With this information on the salary they would need, have the students answer Question #24. Have them list five jobs that remain on their needles when they answer Question #24.
9. Class discussion may ensue.

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NEEDLE-SORT/CAREER AWARENESS AND EXPLORATION Name_____

LIFESTYLE and ECONOMICS

1. Clip from the classified ads in a newspaper a place to live (house, apt., room) to fit your description of where you would like to live after you leave home.

Monthly payment or rent $_____

2. After you leave home do you plan to:

_____marry _____eat out once a week or more ($_____per mo.)

_____have children _____dress fashionably ($_____per mo.)

_____own one or more cars _____eat well ($_____per mo.)

3. List 10 things you will buy immediately to furnish your home. Using catalogs or newspaper ads, list a price you would need to pay for the item.

a. _____	$_____	f. _____	$_____
b. _____	$_____	g. _____	$_____
c. _____	$_____	h. _____	$_____
d. _____	$_____	i. _____	$_____
e. _____	$_____	j. _____	$_____
(a)Total	_____	(b)Total	_____

Grand Total for furnishings = $_____ (a) + (b)

Divide the Grand Total by 12 $_____ (if you could pay over 1 year)

4. Now add up your housing payment $_____
food and clothing $_____ = $_____
monthly payments on furnishings $_____

5. Based on information given above, what would you suggest would be a minimum salary you would need per month? (Remember that 20% to 30% of the salary may be deducted for taxes or other 'benefits'.)

I would need a minimum salary of $_____

6. Now answer question 24 in the User's Handbook, and list 5 jobs remaining on your needle that you would like to do.

a. _____ b. _____

c. _____ d. _____

e. _____

CAREER CLUSTERS

Business

Industrial Arts

Health

Child Care

Food Services

TITLE: Exploring Business Careers

by Maggie Burton — CIS — Eugene, Oregon
and Sue Berg — North Eugene High School — Eugene, Oregon

OBJECTIVE: For high school students who have chosen a business career cluster for study. Students recognize the different types of jobs within each career cluster and the characteristics of job groups within a cluster.

TIME: Enough time for each student to use the CIS Needle-Sort or the computer terminal.

MATERIALS & FACILITIES NEEDED:

A copy of the attached worksheet for each student
CIS Terminal or Needle-Sort
CIS User's Handbooks for each student
Additional occupational information such as the Occupational Outlook Handbook and the Dictionary of Occupational Titles

METHODOLOGY:

1. Give students each a copy of the accompanying worksheet and explain the general division of jobs within the business cluster (administrative, bookkeeping/accounting, and clerical). For the instructor's information, the occupations related to these groupings in CIS are as follows: Administrative Occupations - occupation numbers 1100-1199; Bookkeeping/Accounting Occupations - occupation numbers 1600-1699; and Clerical Occupations - occupation numbers 1400-1499.
2. Have students select one occupation that interests them in each of the three groups and research the answers to the items listed to the left side of the page. CIS information is the major resource for completing the assignment. Additional resources may be made available.
3. If the VISIT file is available or the instructor can suggest people to visit for an interview about a specific job, students may be asked to complete an interview and attach their notes in response to the last item listed on the worksheet. Otherwise, this step may be skipped.
4. After students complete their worksheets, the class may discuss their research.

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Name_____ Career Cluster_____

Information Needed	Administrative	Bookkeeping/Accounting	Clerical
Abilities required?			
Personality traits required?			
Amount of Education required?			
Cost of Education required?			
High School courses needed?			
Where can I get training or education?			
Where would I work?			
Wages or salary (hour, week, month or year)?			
Hours of work (day, week, month)?			
Vacation (days, weeks per year)?			
Job security?			
Retirement?			
Fringe Benefits?			
Lifestyle associated with job?			
Union or license?			
Outlook?			
Opportunity for Advancement?			
Advantages of job?			
Disadvantages of job?			
Interview of a person now working at this job . . . (optional)			

TITLE: TOOLS USED WITHIN SHOP CAREERS

by John Harris Binnsmead School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: To make 7 and 8th grade students aware of careers through the use of tools found in the shop.

TIME: 2-3 class periods

MATERIALS & FACILITIES NEEDED:

CIS Terminal and/or CIS Needle-Sort
Dictionary of Occupational Titles
Tools present in a shop

METHODOLOGY:

1. Students make a list of 5 careers which use tools.
2. For each career mentioned, they are asked to list 3 tools used in it.
3. Students are then asked to research 2 of their career choices and include a job description and some training information.

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TITLE: HOSPITAL CONNECTION

by June Conway — Lincoln/Wilson High Schools — Portland, Oregon
by Alice Brown — Wilson High School — Portland, Oregon

OBJECTIVE: For junior or senior high school students to gain information about health occupations. Specifically students will obtain detailed information about one health occupation that interests them.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:

CIS User's Handbooks
CIS Terminal
Occupational Outlook Handbook
Hospital Interview Questionnaire (sample follows)
Career Center (if available)

METHODOLOGY:

1. Students organize a field trip to explore careers (probably in groups of 3 or 4 - whatever the institution will allow).
2. Each student selects one area of interest and requests an interview with an employee working in this job, using the Hospital Interview Questionnaire as a guide (see sample on following page).
3. In addition to the interview, student uses the Career Information System for printouts of occupation information, preparation, and schools; also references in career center or school library.

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Health Occupations

HOSPITAL INTERVIEW QUESTIONNAIRE

JOB TITLE:

DUTIES AND RESPONSIBILITIES:

HOURS AND SALARY RANGE:

PERSONALITY OR CHARACTER REQUIREMENTS:

OPPORTUNITIES FOR ADVANCEMENT:

ADVANTAGES (e.g., direct contact with people):

DISADVANTAGES (e.g., too much standing, hours, etc.):

MOST SATISFYING OR EXCITING EXPERIENCE OF THE JOB:

RELATED JOB OPPORTUNITIES:

EDUCATIONAL REQUIREMENTS: (include College Course of Study)

MY IMPRESSION OF THE JOB:

TITLE: Careers as Health Technicians/Technologists

by Jan Goddard Marysville School Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: Students identify specific entry-level skills required of a variety of health technicians and technologists by using both assisted and independent study.

TIME: 1 week

MATERIALS & FACILITIES NEEDED:

CIS Occupational Information Printouts; CIS Program of Study Information Printouts; CIS User's Handbooks; Occupational Outlook Handbooks; telephone books (yellow pages); school catalogs.
Speakers: teachers from local colleges, doctors, health technicians/technologists

METHODOLOGY:

1. Students obtain description of Health Technicians/Technologists and Laboratory Testers (see DESC 2654 and DESC 2656 in CIS Occupational Information printouts).
2. Using the information about these occupations, students list five that interest them (e.g., EEG technician, respiratory therapist, medical technologist).
3. Students obtain a list of all schools in the local area with related vocational training programs (see PROG 383, PROG 385, and PROG 387 in CIS Program of Study printout).
4. Using research and interview techniques (in person or by telephone), students then locate 10 potential employers for the occupations they have identified as interesting to them.
5. (Optional) Speakers may be invited to the class to speak about the occupations.

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TITLE: CHILD CARE SERVICES

by Betty Beadle Lent/Whitman Schools Portland, Oregon
submitted by Cathy Williams Madison High School Portland, Oregon

OBJECTIVE: For junior and senior high home economics students to develop aptitude, interest, and skill in operating a day care center.

TIME: 2 weeks

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS User's Handbooks
CIS Occupational Information Printouts

METHODOLOGY:

1. Have students list the types of activities they feel staff members in a child care center would be required to perform.
2. Have each student fill out QUEST.
3. Have students check their list against the CIS occupational information file.
4. Have a resource person - certified day care center personnel - discuss qualifications and education needed for this type of occupation.
5. Have students compare the CIS information with the comments of the resource person.
6. Students would visit kindergarten classes for observation purposes.
7. They would work in twos or threes for a week as a teacher aide to check on their observations.
8. Day care center students would be brought to the home economics lab for a meal and play period.
9. Students would keep a chart on the emotional, physical, mental and social needs of the children.
10. Through a class discussion, the students will compare their findings and list the types of courses they feel might be of value for child care workers.
11. The class will then check with the CIS program information file to see how accurate they were in the course of study.
12. Students will list three schools that offer child care training.

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TITLE: COMMERCIAL KITCHENS

by Janey Tinker Kelly School Portland, Oregon

OBJECTIVE: To make home economics student aware of the many types of employment available in the Food Service Cluster.

TIME: Approximately 1 week

MATERIALS & FACILITIES NEEDED:

CIS Terminal
CIS Occupational Information Printouts
CIS User's Handbooks

METHODOLOGY:

(Outline succinctly methods to be utilized in exercise. State time needs, limitations, expected results, and all steps necessary to perform the exercise.)

1. Teacher should arrange a field trip to a kitchen and obtain a list of jobs completed in that kitchen.
2. Class discussion on variety of jobs one might find, the training necessary, working conditions expected, and the questions one might ask.
3. Research those jobs discussed in the class session by using the CIS Occupational Information printouts or the terminal.
4. Research the various training programs by using the CIS program file.
5. Have students through observation, questioning, and interviewing on the field trip gather information, identify, compare roles and describe conditions in which home kitchens compare and contrast to quantity food preparation.
6. Students will also check their research findings through the personal contact with people in the Food Service Cluster during the field trip.

Note to Teacher: If the CIS terminal is used in step #3, some prior instruction on its use will be necessary.

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APPENDICES

Career Information System **No.**

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

METHODOLOGY:

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Career Information System **No.**

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

METHODOLOGY:

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Career Information System **No.**

TITLE:

OBJECTIVE:

TIME:

MATERIALS & FACILITIES NEEDED:

METHODOLOGY:

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Career Information System

I. PURPOSE

This AGREEMENT is entered into this _____ day of _____ by and between the _____, hereinafter referred to as "AGENCY," and the STATE OF OREGON, acting by and through the STATE BOARD OF HIGHER EDUCATION on behalf of the University of Oregon and the Career Information System, hereinafter referred to as "Career Information System."

The parties agree to operate the System during the period _____ _____. Career Information System agrees to provide materials and access to the system and to assist AGENCY with planning, in-service training and other activities required for successful operation of Career Information System.

AGENCY agrees not to use computer programs, information files or materials obtained or developed for the purpose of implementing Career Information System, except under terms of this or subsequent agreements.

II. NUMBER OF USERS

1. AGENCY will provide Career Information System for the sole use of staff and clientele of _____ _____. In addition, AGENCY may operate the System for brief periods of time for the purpose of demonstrating its capabilities to other individuals.

2. All usage shall be consistent with the terms of "Standards for Use of the Career Information System," which is attached and made part of this agreement.

3. The parties estimate that _____ the Career Information System information files and programs during the life of this agreement.

4. Other use may be authorized with the approval of Career Information System and appropriate revision in number of users and fees.

III. CONSORTIUM MEMBERSHIP

1. Membership in the Oregon CIS Consortium is automatically extended to secondary schools and community colleges whose Service Fee covers two-thirds of their enrollment. Membership indicates that the agency/school is providing its fair share of the CIS operating budget.

2. Other membership will be determined individually by the CIS Board.

3. Membership in the Oregon CIS Consortium provides the opportunity to nominate people for vacant CIS Board positions.

IV. SERVICE FEES

1. AGENCY agrees to commit a total of $_____ to the Career Information System for the Service Fee. The rate for Consortium members is $1.38 for the first 3,200 estimated users and $.56 each thereafter. The user base for secondary schools is two-thirds of the 7th through 12th grade Net Enrollment as of June 30, 1975. For this agreement, the following user bases are applicable:

_____ estimated users

_____ " "

_____ " "

Total: _____ " "

For subscribers who are not Consortium members, the Service Fee is $1.45 for the first 3,200 and $.70 per estimated user thereafter. The minimum Service Fee is $135.

2. These rates are consistent with the 1976-77 pricing policy which has been established by the Career Information System Board.

V. DELIVERY SYSTEM COSTS

1. AGENCY recognizes that the costs of the delivery system (computerized and/or needle-sort systems) are not included in the above CIS Service Fee.

2. The following delivery systems are to be included in this agreement in addition to the above Service Fee:

_____ Needle-Sort Systems at the annual rental of $60.

_____ subscriptions to:
- ____ Occupational Information printouts at _____ each;
- ____ Programs of Study and Training printouts at _____ each;
- ____ School Information printouts at _____ each;
- ____ complete set(s) of the printouts at _____ per set.

VI. TOTAL COSTS

1. The total cost of this agreement is:

Service Fee: _____

Delivery Systems: _____

Total: _____

2. AGENCY will make payment on invoice issued _____.

3. AGENCY agrees that no charges will be made to individual students, staff or counselors for the use of the System.

VII. AGENCY COORDINATOR

The parties agree that _____ will serve as agency coordinator for this agreement. The Coordinator will:

(a) distribute materials to local user sites;

(b) see that a local coordinator is designated for each site where the System is used and provide Career Information System a list of the names, addresses, and telephone numbers of the local coordinators;

(c) jointly plan in-service training and other activities with the Career Information System staff;

(d) promote the implementation of the System into ongoing counseling and guidance activities.

VIII. INFORMATION DEVELOPMENT AND MAINTENANCE

The Career Information System will make available and continuously update the following files and programs:

Description (DESC) file localized to the following area: _____ _____; Bibliography (BIB) file; Preparation (PREP) file; Explorer Posts and Junior Achievement (CLUBS) file; Educational and training program (PROG) file; postsecondary school (SCH) file;

QUEST program (computerized and/or needle-sort);

A VISIT file may be initiated by AGENCY, with the assistance and procedures established by CIS.

IX. IN-SERVICE TRAINING

The parties will cooperatively plan in-service training for all local coordinators. Local usage will not be authorized by either party until the local coordinator has attended in-service training.

The Career Information System will be available as a resource for further training at each institution using the System upon request by the Agency Coordinator.

X. TERMINATION

Violation of the above terms and conditions shall constitute a breach of this agreement. Upon such breach of agreement and after a thorough review of the breach by both parties, either party may terminate this agreement upon ten (10) days' written notice to the other.

Upon expiration or termination of this agreement, AGENCY agrees to return to the Career Information System any unused copies of the user handbooks, information files and other materials obtained or developed for the purpose of implementing the occupational information system.

XI. SIGNATURES

FOR AGENCY:

_____

Financial Administrator Date

_____

Agency Coordinator Date

FOR CAREER INFORMATION SYSTEM:

_____

Bruce McKinlay, Director Date

_____

J. Richard Pizzo Date

STATE OF OREGON ACTING BY AND THROUGH THE STATE BOARD OF HIGHER EDUCATION ON BEHALF OF THE UNIVERSITY OF OREGON

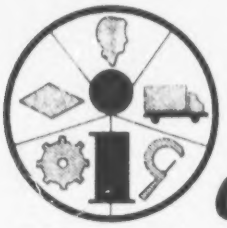
By_____

W. N. McLaughlin, Contracting Officer, Director of Business Affairs, University of Oregon

FOR UNIVERSITY OF OREGON

_____

D. C. Howard, Research Financial Administrator



Office of the Director
247 Hendricks Hall
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Eugene, Oregon 97403
(502) 686-3872

Career Information System

STANDARDS FOR USE OF THE CAREER INFORMATION SYSTEM

The Career Information System (CIS) has the responsibility for providing practical means of direct access to current labor market and educational information in forms which are meaningful to individual students and clients and for encouraging integration of such information into schools and social agencies. Two of the methods available through CIS are the computerized version and the manual Occupational Needle-Sort System.

Both systems are good tools, but, like most tools they are designed to do a particular kind of job. This set of "Standards" is intended to help user schools and agencies use the System appropriately and to plan uses that will complement their other activities.

The purpose of the Career Information System, as the name implies, is to make occupational and educational information more accessible for career exploration. To achieve this end, the CIS;

--utilizes delivery systems that can be operated by inexperienced students and other individuals. Anyone who can follow a simple set of instructions can operate the system.

--updates information immediately as new or revised data become available.

--provides in-service training to coordinators in sponsoring agencies.

--establishes a statewide cooperative to reduce costs and insure quality information to individual schools and agencies.

The delivery system consists of several semi-independent components, so they have a certain built-in flexibility to adapt to different user needs and different institutional resources. The basic components are:

QUEST: Helps users identify occupations to explore and helps them locate appropriate types of information about occupations. (Computer and needle-sort versions available.)

DESCRIPTION: Brief, 300-word summaries about each of the occupations in the System covering 95 percent of the area's employment and some not found locally (teletype and pre-printed printouts are available).

PREPARATION: Describes ways to prepare for occupations.

PROGRAMS OF EDUCATION AND TRAINING: Describes all types of educational programs and lists programs in all types of post-secondary educational institutions (teletype and pre-printed printouts are available).

SCHOOLS: Present comparable data about services and costs of two- and four-year and proprietary post-secondary educational institutions (teletype and pre-printed printouts are available).

CLUBS: Lists career Explorer posts and Junior Achievement organizations.

VISITS: Gives the names of people for personal discussion about their occupation (available only in areas with local sponsors).

The System has been systematically tested in schools, social agencies and shopping centers and is now in widespread use in educational institutions. (Copies of the individual evaluation reports are available on request.)

Among other things, these tests and operating experiences indicate certain rules for effective use of the System.

Rules for System Use

1. The following table indicates ways in which System components can be used to meet particular needs. Prospective user institutions should analyze their needs to determine which purposes they want the System to serve.

USES OF CIS COMPONENTS

TYPE OF USE	Principal Component	Other Required Components	Optional Additional Components
1) Identification of Occupations for Exploration	QUEST	DESCRIPTIONS BIBLIOGRAPHY PREPARATION	VISITS CLUBS
2) Introduction to Occupations	DESCRIP-TIONS	BIBLIOGRAPHY PREPARATION	VISITS CLUBS
3) Introduction to Educational & Training Opportunites	PROGRAM	SCHOOLS PREPARATION DESCRIPTIONS	VISITS CLUBS BIBLIOGRAPHY
4) Counselor's Reference to Selected Career Materials	BIBLIOGRAPHY		DESCRIPTIONS PROGRAMS SCHOOLS
5) Post-Secondary Schools Informa-tion	SCHOOLS		PROGRAMS

The requirements listed in the preceding table are based on experience which has shown, for instance, that the QUEST questionnaire and list of occupational titles should not be used by itself. The questionnaire contains several pertinent occupation selection criteria, but other information, for instance job opportunities and licensing requirements, is essential to a sound occupational choice. Users must have access to and be encouraged to use some additional material--descriptions, books, visits, etc. -- to get information about the occupations they want to explore. Any institution using the QUEST part of the System must plan to utilize at least the DESCRIPTIONS, BIBLIOGRAPHY, and PREPARATION statements.

2. Batch processing of the QUEST questionnaire, whereby students receive only a printout of their QUEST list without an opportunity to make CHANGE, inquire WHY NOT, and immediately retrieve descriptive information about the occupations, is not authorized. A school or agency that desires to use this process should obtain prior authorization from the CIS Director of User Serivces.

3. Institutions should incorporate the System into ongoing courses and counseling practice, wherever appropriate and feasible.

It is advantageous, though not required, that they also make the System available for independent student/client use. Experience has proven that the System receives effective use when it is open to independent client/student usage, but its resources should also be integrated into ongoing instructional and couseling programs. A CIS publication, Keeping It Going -- a handbook for implementing The Career Information System, is available to aid in this process.

4. In-service training of staff is a prerequisite to use of the System. Effective use of the System requires an understanding of: System components, sources and use of information, mechanics of System use, and discussion of System applications within the particular setting. Staff who will use or be responsible for the use of the System in individual schools and agency offices must attend a training program which has been approved by the CIS.

5. Each user institution should designate one person as the coordinator for the institution. This will provide a contact point for communication between the institution and the CIS staff.

6. Current local, regional, and national occupational and educational information is at the heart of the System. Providing inaccurate or outdated information is a serious misuse of the System and a disservice to people. User schools and agencies must support research costs of CIS, which operates the information maintenance program for the System. (Design of the System was financed by various grants, so user agencies are not charged for any of the initial development costs. However, operating costs must be borne by user institutions.) These costs will include:

For the Computerized Career Information System	For the Occupational Needle-Sort System
- CIS Services -	
I. appropriate printed materials (user's handbooks, Implementation handbook, etc.)	I. appropriate printed materials (user's handbooks, Implementation handbook, etc.)
II. share of updating costs (continuous information maintenance and system modifications)	II. share of updating costs (continuous information maintenance and system modifications)
III. agency staff training and program evaluation	III. agency staff training and program evaluation
- Delivery Devices -	
IV. operating costs (computer terminal rental or purchase, computer time charge) installation telephone and connection	IV. rental of needle-sort cards, box, and needle; DESC, PROG, and SCHOOLS printouts

7. CIS materials are copyrighted and remain the property of the Oregon Career Information System. They may not be duplicated by user agencies without the written approval of the CIS Director.

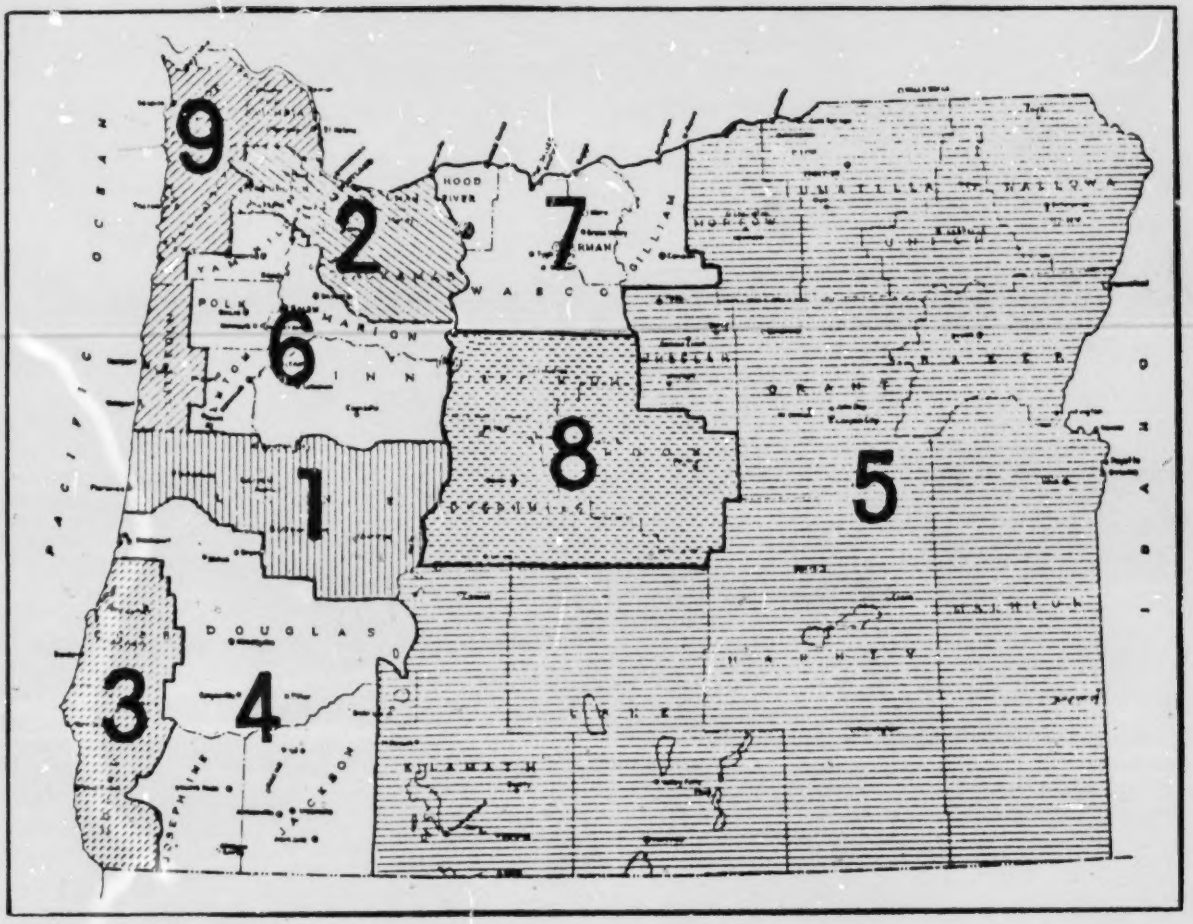
8. User agencies must provide adequate delivery devices to serve their clientele. Experience indicated that one terminal per 1200 users and one needle-sort per 200 users are optimum.

9. Both computerized and needle-sort systems are still being modified, and new applications may be tested. Experimentation is encouraged, provided it is conducted with evaluation and with approval by CIS staff. However, the above requirements have proven to be essential, and any institution using the systems must observe these requirements unless other arrangements are made in advance. Unauthorized departure from these standards will be viewed as a breach of the agreement and will result in termination of System availability.

Revised 11/71
Adopted by CIS Board 11/15/71
Revised and Adopted 8/73
Revised 9/75
Revised 7/76
CAREER INFORMATION SYSTEM

APPENDIX D

LOCALIZED INFORMATION



The above map represents the state of Oregon divided into nine geographic areas, designed to effect and economize the task of localizing labor market information by the Career Information System. The basic plan was developed through the cooperative efforts of Mike Shadbolt, former CIS Information Development Manager, and the Oregon State Employment Division Manpower Economists. Together, they reached consensus about grouping specific counties to facilitate CIS's labor market research activities without markedly reducing overall quality of the CIS occupational descriptions.

The boundaries of these areas take into account the 14 Administrative Districts as defined by the Governor's office and the State Economic Areas defined by the Census Bureau. They are based upon distinct geographic and economic factors.

Career Information System

Office of the Director
247 Hendricks Hall
University of Oregon
Eugene, Oregon 97403

NUMERICAL LIST OF OCCUPATIONS
COORDINATOR'S HANDBOOK

--Effective to July 1977--

The user may obtain this list of CIS occupations in either the computer or the needle-sort delivery system.

-- Using the computer, type DESC and the first two digits of the code number of the occupational group that interests you (e.g., administrative occupations--DESC 11), then hit the return key. You will obtain a numerical list of all of the occupations in that occupational group.

-- Using the needle-sort system, look in the occupational description printout for the colored pages at the beginning of each occupational group for the appropriate numerical list.

11 ADMINISTRATIVE OCCUPATIONS

(General Administrative)

1132 Hotel and Motel Managers
1134 Health Service Administrators
1136 Education Administrators
1138 Public Administrators
1142 Small Business Operators
1144 Business Executives
1146 Business Managers
1152 Construction Superintendents
1154 Production Superintendents
1162 Sales and Service Managers
1172 Military Officers
11722 Naval Officers

(Administrative Staff)

1184 Buyers and Purchasing Agents
1186 Personnel Officers
1195 Public Relations Workers

14 CLERICAL OCCUPATIONS

(General Clerical)

1411 Office Managers
1412 Secretaries
1414 Stenographers
1415 Shorthand Reporters
1416 Clerk Typists
1418 General Office Clerks
1422 Teacher Aides
1424 Travel Agents

(Reception)

1452 Receptionists
1454 Telephone & Telegraph Operators
1456 Messengers

16 BOOKKEEPING-ACCOUNTING OCCS.

(General Accounting)

1614 Accountants and Auditors
1616 Bookkeepers

(Credit and Collection)

1634 Appraisers and Underwriters
1636 Loan Officers
1642 Cashiers and Bank Tellers
1646 Railroad Clerks

(Data Processing)

1684 Programmers & Systems Analysts
1686 Computer Operators
1688 Keypunch Operators

(Other Office Machine Operators)

1692 Office Machine Operators

21 SOCIAL RESEARCH & PLANNING OCCS.

2144 Social Scientists
21442 Sociologists
21444 Economists
2174 Freelance Writers
2176 Writers and Editors

23 ENGINEERING & DESIGN OCCUPATIONS

(Planning)

2314 Land Use Planners
2316 Architects
2318 Ecologists

(Math)

2332 Mathematicians & Statisticians

(Engineering)

2354 Engineers
2356 Engineering Technicians

(Drafting)

2364 Draftsmen
2366 Interior Designers & Decorators

26 LABORATORY OCCUPATIONS

2624 Physical Scientists
2626 Earth Scientists
2628 Soil Scientists
2644 Opticians
2654 Health Technicians/Technologists
2655 Dental Laboratory Technicians
2656 Laboratory Testers
2672 Quality Control Inspectors
2674 Sanitarians

31 MECHANICS OCCUPATIONS

(Mobile Equipment)

3112 Automobile Mechanics
3114 Truck & Heavy Equip. Mechanics
3116 Aircraft Mechanics
3118 Small Engine Repairers
3124 Service Station Attendants
3126 Oilers

(Heavy Machinery)

3142 Millwrights
3146 Heat & Cooling System Mechanics

(Small Machinery)

3164 Office Machine Repairers
3166 Telephone Installers-Repairers
3168 Radio and TV Repairers
3169 Appliance Repairers

31 MECH. OCCS. (Cont.)

(Instruments)

3184 Jewelers
3186 Instrument Repairers

34 BUILDING MAINTENANCE OCCS.

(Commercial Building)

3422 Building Maintenance Workers

(Cleaning)

3454 Room Cleaners
3455 Janitors
3456 Domestic Service Workers

41 AGRICULTURAL & FORESTRY OCCS.

(Forestry)

4124 Foresters
4126 Fish and Wildlife Specialists
4128 Forestry Technicians

(Horticulture)

4144 Groundskeepers and Gardeners
4146 Floral Designers

(Commercial Agriculture)

4164 Farmers and Farm Managers
4166 Farm Workers
4168 Seasonal Farm Laborers

42 CONSTRUCTION OCCUPATIONS

4242 Painters
4244 Plasterers & Drywall Installers
4246 Cement Masons
4254 Carpenters
4264 Bricklayers
4274 Plumbers
4276 Floor Layers
4278 Roofers
4286 Construction Laborers
4288 Railroad Laborers

43 FOOD PROCESSING OCCUPATIONS

4324 Bakers
4326 Meat Cutters
4328 Commercial Fishermen
4348 Cannery Workers

44 TEXTILE AND APPAREL OCCUPATIONS

(Textile Manufacturing)

4424 Textile Machine Operators

(Apparel Manufacturing)

4442 Clothes Designers-Patternmakers
4446 Seamstresses and Tailors
4448 Sewing Machine Operators

(Laundry)

4464 Laundry & Dry Cleaning Workers

(Other)

4494 Upholsterers
4496 Shoe Repairers

45 TIMBER PRODUCTS OCCUPATIONS

4514 Fallers and Buckers
4516 Chokersetters

(Sawmill and Plywood)

4522 Sawmill Log Handling Occs.
4524 Plywood Log and Block Handlers
4526 Veneer Production Occupations
4528 Planer Mill Occupations
4532 Sawmill Sawing Occupations
4534 Sawmill Drying Occupations
4536 Sawmill Greenchainmen
4538 Lumber Graders and Inspectors
4542 Sawmill Waste Recovery Occs.
4544 Veneer Drying Occupations
4546 Veneer Salvage & Upgrading Occs.
4548 Plywood Lay-Up Occupations
4552 Plywood Finishing Occupations
4554 Plywood Laborers
4556 Woodworking Machine Operators
4559 Sawmill Laborers

45 TIMBER PROD. OCCS. (Cont.)

(Pulp and Paper)

4574 Pulp and Paper Workers

(Furniture)

4586 Cabinetmakers

47 GRAPHIC ARTS OCCUPATIONS

4724 Commercial Artists & Designers
4734 Photographers
4766 Printing Production Occupations

54 METALWORKING OCCUPATIONS

(Refining and Casting)

5421 Metal Refining Occupations
5422 Metalworking Patternmakers
5424 Molders
5426 Foundry Workers

(Machining)

5462 Tool and Die Makers
5464 Machinists
5468 Saw Filers and Tool Sharpeners
5472 Machine Tool Operators

(Metal Joining and Fabricating)

5482 Welders
5483 Structural Metal & Boiler Makers
5484 Sheet Metal Workers
5486 Body and Fender Repairers
5488 Blacksmith & Forge Shop Workers

56 ELECTRICITY & ELECTRONICS OCCS.

(Electricity)

5624 Linemen
5626 Electricians & Elect. Repairers

(Electronics, Technical)

5664 Broadcast Technicians

56 ELEC. & ELEC. OCCS. (Cont.)

(Electronics, Manufacturing)

5686 Electronics Assemblers

59 OTHER PRODUCTION OCCUPATIONS

5914 Petroleum Processing Occs.
5918 Rubber & Chemical Process Occs.
5924 Rubber & Plastics Fabricators
5926 Production Painters & Finishers
5944 Boiler Operators
5946 Sewage Plant Operators
5966 Production Assemblers
5982 Handcrafters

61 TRANSPORTATION OCCUPATIONS

(Managerial and Technical)

6126 Air Traffic Controllers
6128 Railroad Conductors

(Transportation Equipment Operators)

6142 Bus and Taxi Drivers
6144 Truck Drivers
6152 Bulldozer Operators
6154 Operating Engineers
6156 Yarding and Loading Occupations
6158 Forklift Operators

(Other)

6172 Railroad Engineers
6174 Railroad Brakemen and Switchmen
6184 Ship Officers and Engineers
6188 Pilots and Flight Engineers

71 STOCK CONTROL OCCUPATIONS

7112 Car Loaders
7114 Warehousemen
7116 Shipping and Receiving Clerks
7118 Stock Clerks
7122 Mail Carriers
7124 Newspaper Carriers
7126 Packers and Wrappers
7134 Grocery Baggers
7164 Librarians
7166 Library Assistants

74 SALES OCCUPATIONS

7414 Commercial Salespeople
7415 Securities Salespeople
7416 Insurance Salespeople
7417 Real Estate Salespeople
7418 Automobile Salespeople
7422 Business Services Salespeople
7434 Route Salespeople
7454 Salespersons
7484 Sales Clerks

78 FOOD SERVICE OCCUPATIONS

(Cooking)

7824 Chefs and Dinner Cooks
7826 Fry Cooks

(Serving)

7852 Bartenders
7854 Waiters and Waitresses
7856 Flight Attendants

(Clean-up)

7884 Kitchen Helpers
7888 Bus Boys

81 HEALTH SERVICE OCCUPATIONS

(Administrative, Diagnosis)

8112 Physicians
8113 Dentists
8114 Veterinarians
8115 Optometrists
8116 Dietitians
8117 Physician's Assistants

(Treatment)

8122 Chiropractors
8124 Pharmacists
8126 Health Therapists
8128 Speech Pathologists/Audiologists

(Nursing)

8162 Registered Nurses
8164 Licensed Practical Nurses
8166 Nurse Aides and Orderlies

81 HEALTH SERVICE OCCS. (Cont.)

(Other)

8168 Emergency Medical Technicians
8174 Dental Hygienists
8176 Dental Assistants
8182 Morticians
8184 Barbers
8186 Cosmetologists

84 SOCIAL SERVICE OCCUPATIONS

(Guidance)

8414 Counselors
8416 Caseworkers
8418 Psychologists
8424 Social Service Specialists
8428 Social Service Aides
8432 Lawyers
8433 Legal Assistants
8436 Clergy

(Education)

8454 University and College Teachers
8456 Elementary and Secondary Teachers
8458 Education Program Specialists
8459 Child Care Workers

(Recreation)

8482 Recreation Program Directors
8486 Recreation Leaders
8488 Recreation Aides

94 PROTECTIVE SERVICE OCCUPATIONS

9414 Law Enforcement Officers
9426 Fire Fighters
9436 Military Enlisted Personnel
94364 Navy Enlisted Personnel
9476 Security Guards

98 ART AND ENTERTAINMENT OCCS.

9824 Radio and Television Announcers
9842 Models
9866 Performing Artists
9868 Professional Athletes